<220>
<221> SITE
<222> (153)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (154)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (155)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (156)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (157)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (158)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (159)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (160)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (161)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (162)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (163)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (164)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (165)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (166)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (167)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (168)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (169)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (170)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (171)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (172)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (173)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (174)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (175)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (176)
<223> n equals a,t,g, or c

<220>

09508252 - 091704

<221> SITE
<222> (177)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (178)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (179)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (180)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (181)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (182)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (183)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (184)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (185)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (186)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (187)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (188)
<223> n equals a,t,g, or c

<220>
<221> SITE

<222> (189)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (190)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (191)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (192)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (193)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (194)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (195)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (196)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (197)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (198)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (199)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (200)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (201)

09508852 "094204

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (202)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (203)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (204)
<223> n equals a,t,g, or c

09550082 - 051201

<220>
<221> SITE
<222> (205)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (206)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (207)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (208)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (209)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (210)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (211)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (212)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (213)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (214)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (215)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (216)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (217)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (218)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (219)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (220)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (221)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (222)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (223)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (224)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (225)
<223> n equals a,t,g, or c

Express Mail No. EV 074250950 US

<220>
<221> SITE
<222> (226)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (227)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (228)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (229)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (230)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (231)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (232)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (233)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (234)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (235)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (236)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (237)
<223> n equals a,t,g, or c

<220>

EFS ID: 4102595

<221> SITE
<222> (238)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (239)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (240)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (241)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (242)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (243)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (244)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (245)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (246)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (247)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (248)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (249)
<223> n equals a,t,g, or c

<220>
<221> SITE

<222> (250)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (251)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (252)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (253)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (254)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (255)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (256)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (257)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (258)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (259)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (260)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (261)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (262)

10/550,880 - 09/27/2006

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (263)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (264)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (265)
<223> n equals a,t,g, or c

09509852.061201

<220>
<221> SITE
<222> (266)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (267)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (268)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (269)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (270)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (271)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (272)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (273)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (274)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (275)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (276)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (277)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (278)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (279)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (280)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (281)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (282)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (283)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (284)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (285)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (286)
<223> n equals a,t,g, or c

09509082 "031201

<220>
<221> SITE
<222> (287)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (288)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (289)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (290)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (291)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (292)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (293)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (294)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (295)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (296)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (297)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (298)
<223> n equals a,t,g, or c

<220>

EFS ID: 7005085

<221> SITE
<222> (299)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (300)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (301)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (302)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (303)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (304)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3943)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3944)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3945)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3946)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3947)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3948)
<223> n equals a,t,g, or c

<220>
<221> SITE

<222> (3949)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3950)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3951)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3952)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3953)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3954)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3955)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3956)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3957)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3958)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3959)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3960)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3961)

09650088 - 091201

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3962)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3963)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3964)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3965)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3966)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3967)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3968)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3969)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3970)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3971)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3972)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3973)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3974)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3975)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3976)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3977)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3978)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3979)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3980)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3981)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3982)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3983)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3984)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3985)
<223> n equals a,t,g, or c

10250826.062501

<220>
<221> SITE
<222> (3986)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3987)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3988)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3989)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3990)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3991)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3992)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3993)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3994)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3995)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3996)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3997)
<223> n equals a,t,g, or c

<220>

09508282 - 041204

<221> SITE
<222> (3998)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (3999)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4000)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4001)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4002)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4003)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4004)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4005)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4006)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4007)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4008)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4009)
<223> n equals a,t,g, or c

<220>
<221> SITE

<222> (4010)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4011)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4012)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4013)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4014)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4015)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4016)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4017)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4018)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4019)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4020)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4021)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4022)

09509082.060702

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4023)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4024)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4025)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4026)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4027)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4028)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4029)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4030)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4031)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4032)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4033)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4034)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4035)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4036)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4037)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4038)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4039)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4040)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4041)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4042)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4043)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4044)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4045)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4046)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4047)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4048)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4049)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4050)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4051)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4052)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4053)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4054)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4055)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4056)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4057)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4058)
<223> n equals a,t,g, or c

<220>

09505082 - 051201

<221> SITE
<222> (4059)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4060)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4061)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4062)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4063)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4064)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4065)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4066)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4067)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4068)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4069)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4070)
<223> n equals a,t,g, or c

<220>
<221> SITE

PCT/US98/25056

<222> (4071)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4072)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4073)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4074)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4075)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4076)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4077)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4078)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4079)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4080)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4081)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4082)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4083)

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4084)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4085)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4086)
<223> n equals a,t,g, or c

09500820 - 091201

<220>
<221> SITE
<222> (4087)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4088)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4089)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4090)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4091)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4092)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4093)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4094)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4095)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4096)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4097)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4098)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4099)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4100)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4101)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4102)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4103)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4104)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4105)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4106)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4107)
<223> n equals a,t,g, or c

EFS Web 2.1.17

<220>
<221> SITE
<222> (4108)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4109)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4110)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4111)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4112)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4113)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4114)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4115)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4116)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4117)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4118)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4119)
<223> n equals a,t,g, or c

<220>

PCT/US96/05092

<221> SITE
<222> (4120)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4121)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4122)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4123)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4124)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4125)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4126)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4127)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4128)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4129)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4130)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4131)
<223> n equals a,t,g, or c

<220>
<221> SITE

1023409 "2800505.50

<222> (4132)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4133)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4134)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4135)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4136)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4137)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4138)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4139)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4140)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4141)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4142)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4143)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4144)

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4145)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4146)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4147)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4148)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4149)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4150)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4151)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4152)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4153)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4154)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4155)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4156)
<223> n equals a,t,g, or c

PCT/US98/26804

<220>
<221> SITE
<222> (4157)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4158)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4159)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4160)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4161)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4162)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4163)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4164)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4165)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4166)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4167)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4168)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4169)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4170)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4171)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4172)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4173)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4174)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4175)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4176)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4177)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4178)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4179)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4180)
<223> n equals a,t,g, or c

<220>

pf0209.050.60

<220>
<221> SITE
<222> (4181)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4182)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4183)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4184)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4185)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4186)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4187)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4188)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4189)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4190)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4191)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4192)
<223> n equals a,t,g, or c

<220>
<221> SITE

09509082.061501

<222> (4193)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4194)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4195)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4196)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4197)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4198)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4199)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4200)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4201)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4202)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4203)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4204)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4205)

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4206)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4207)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4208)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4209)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4210)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4211)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4212)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4213)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4214)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4215)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4216)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4217)
<223> n equals a,t,g, or c

09/529,069 04/07/2000

<220>
<221> SITE
<222> (4218)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4219)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4220)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4221)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4222)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4223)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4224)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4225)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4226)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4227)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4228)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4229)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4230)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4231)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4232)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4233)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4234)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4235)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4236)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4237)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4238)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4239)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4240)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4241)
<223> n equals a,t,g, or c

<220>

D0E7E60 "28005050

<221> SITE
<222> (4242)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4243)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4244)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4245)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4246)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4247)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4248)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4249)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4250)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4251)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4252)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4253)
<223> n equals a,t,g, or c

<220>
<221> SITE

<222> (4254)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4255)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4256)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4257)
<223> n equals a,t,g, or c

09509082 - 031204

<220>
<221> SITE
<222> (4258)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4259)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4260)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4261)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4262)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4263)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4264)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4265)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4266)

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4267)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4268)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4269)
<223> n equals a,t,g, or c

PCT/US99/29694

<220>
<221> SITE
<222> (4270)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4271)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4272)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4273)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4274)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4275)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4276)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4277)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4278)
<223> n equals a,t,g, or c

09550080 071201

<220>
<221> SITE
<222> (4279)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4280)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4281)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4282)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4283)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4284)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4285)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4286)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4287)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4288)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4289)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4290)
<223> n equals a,t,g, or c

T0274 "2800560

<220>
<221> SITE
<222> (4291)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4292)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4293)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4294)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4295)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4296)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4297)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4298)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4299)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4300)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4301)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4302)
<223> n equals a,t,g, or c

<220>

09508201.960104

<221> SITE
<222> (4303)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4304)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4305)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4306)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4307)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4308)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4309)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4310)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4311)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4312)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4313)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4314)
<223> n equals a,t,g, or c

<220>
<221> SITE

<222> (4315)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4316)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4317)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4318)
<223> n equals a,t,g, or c

09509082 - 091202

<220>
<221> SITE
<222> (4319)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4320)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4321)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4322)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4323)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4324)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4325)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4326)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4327)

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4328)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4329)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4330)
<223> n equals a,t,g, or c

09509202.050199

<220>
<221> SITE
<222> (4331)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4332)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4333)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4334)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4335)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4336)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4337)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4338)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4339)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4340)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4341)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4342)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4343)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4344)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4345)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4346)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4347)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4348)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4349)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4350)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4351)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4352)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4353)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4354)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4355)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4356)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4357)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4358)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4359)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4360)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4361)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4362)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4363)
<223> n equals a,t,g, or c

<220>

T02T09-09502-0802

<221> SITE
<222> (4364)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4365)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4366)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4367)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4368)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4369)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4370)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4371)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4372)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4373)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4374)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4375)
<223> n equals a,t,g, or c

<220>
<221> SITE

<222> (4376)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4377)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4378)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4379)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4380)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4381)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4382)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4383)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4384)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4385)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4386)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4387)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4388)

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4389)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4390)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4391)
<223> n equals a,t,g, or c

09509082 - 071201

<220>
<221> SITE
<222> (4392)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4393)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4394)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4395)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4396)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4397)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4398)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4399)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4400)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4401)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4402)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4403)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4404)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4405)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4406)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4407)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4408)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4409)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4410)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4411)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4412)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4413)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4414)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4415)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4416)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4417)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4418)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4419)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4420)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4421)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4422)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4423)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4424)
<223> n equals a,t,g, or c

<220>

09505082 - 040204

<221> SITE
<222> (4425)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4426)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4427)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4428)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4429)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4430)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4431)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4432)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4433)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4434)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4435)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4436)
<223> n equals a,t,g, or c

<220>
<221> SITE

<222> (4437)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4438)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4439)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4440)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4441)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4442)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4443)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4444)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4445)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4446)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4447)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4448)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4449)

09508202 - 071504

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4450)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4451)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4452)
<223> n equals a,t,g, or c

10250560.960205

<220>
<221> SITE
<222> (4453)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4454)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4455)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4456)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4457)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4458)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4459)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4460)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4461)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4462)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4463)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4464)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4465)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4466)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4467)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4468)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4469)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4470)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4471)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4472)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4473)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4474)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4475)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4476)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4477)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4478)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4479)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4480)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4481)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4482)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4483)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4484)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4485)
<223> n equals a,t,g, or c

<220>

09508382.060502

pct25050.seq

<221> SITE
<222> (4486)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4487)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4488)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4489)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4490)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4491)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4492)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4493)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4494)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4495)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4496)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4497)
<223> n equals a,t,g, or c

<220>
<221> SITE

<222> (4498)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4499)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4500)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4501)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4502)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4503)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4504)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4505)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4506)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4507)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4508)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4509)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4510)

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4511)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4512)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4513)
<223> n equals a,t,g, or c

PCT/US98/26960

<220>
<221> SITE
<222> (4514)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4515)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4516)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4517)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4518)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4519)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4520)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4521)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4522)
<223> n equals a,t,g, or c

PCT/US98/20550

<220>
<221> SITE
<222> (4523)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4524)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4525)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4526)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4527)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4528)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4529)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4530)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4531)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4532)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4533)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4534)
<223> n equals a,t,g, or c

PCT/US2000/05960

<220>
<221> SITE
<222> (4535)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4536)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4537)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4538)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4539)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4540)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4541)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4542)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4543)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4544)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4545)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4546)
<223> n equals a,t,g, or c

<220>

09502082.062102

<221> SITE
<222> (4547)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4548)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4549)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4550)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4551)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4552)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4553)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4554)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4555)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4556)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4557)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4558)
<223> n equals a,t,g, or c

<220>
<221> SITE

<222> (4559)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4560)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4561)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4562)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4563)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4564)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4565)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4566)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4567)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4568)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4569)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4570)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4571)

10254080.060501

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4572)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4573)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4574)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4575)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4576)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4577)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4578)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4579)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4580)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4581)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4582)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4583)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4584)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4585)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4586)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4587)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4588)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4589)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4590)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4591)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4592)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4593)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4594)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4595)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4596)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4597)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4598)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4599)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4600)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4601)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4602)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4603)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4604)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4605)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4606)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4607)
<223> n equals a,t,g, or c

<220>

09500082 .031201

1025.0250.2050

<221> SITE
<222> (4608)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4609)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4610)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4611)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4612)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4613)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4614)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4615)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4616)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4617)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4618)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4619)
<223> n equals a,t,g, or c

<220>
<221> SITE

<222> (4620)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4621)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4622)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4623)
<223> n equals a,t,g, or c

PCT/US98/26950

<220>
<221> SITE
<222> (4624)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4625)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4626)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4627)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4628)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4629)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4630)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4631)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4632)

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4633)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4634)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4635)
<223> n equals a,t,g, or c

pct.2005098

<220>
<221> SITE
<222> (4636)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4637)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4638)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4639)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4640)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4641)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4642)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4643)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4644)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4645)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4646)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4647)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4648)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4649)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4650)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4651)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4652)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4653)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4654)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4655)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4656)
<223> n equals a,t,g, or c

09508202.071201

<220>
<221> SITE
<222> (4657)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4658)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4659)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4660)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4661)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4662)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4663)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4664)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4665)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4666)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4667)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4668)
<223> n equals a,t,g, or c

<220>

10215980.050501

<221> SITE
<222> (4669)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4670)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4671)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4672)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4673)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4674)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4675)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4676)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4677)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4678)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4679)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4680)
<223> n equals a,t,g, or c

<220>
<221> SITE

<222> (4681)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4682)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4683)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4684)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4685)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4686)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4687)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4688)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4689)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4690)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4691)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4692)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4693)

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4694)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4695)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4696)
<223> n equals a,t,g, or c

PCT/US97/05960

<220>
<221> SITE
<222> (4697)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4698)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4699)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4700)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4701)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4702)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4703)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4704)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4705)
<223> n equals a,t,g, or c

PCT/US2000/15050

<220>
<221> SITE
<222> (4706)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4707)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4708)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4709)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4710)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4711)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4712)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4713)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4714)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4715)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4716)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4717)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4718)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4719)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4720)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4721)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4722)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4723)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4724)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4725)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4726)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4727)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4728)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4729)
<223> n equals a,t,g, or c

<220>

EP 1 024 201 A2 20000802

<221> SITE
<222> (4730)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4731)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4732)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4733)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4734)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4735)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4736)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4737)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4738)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4739)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4740)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4741)
<223> n equals a,t,g, or c

<220>
<221> SITE

<222> (4742)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4743)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4744)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4745)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4746)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4747)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4748)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4749)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4750)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4751)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4752)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4753)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4754)

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4755)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4756)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4757)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4758)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4759)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4760)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4761)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4762)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4763)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4764)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4765)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4766)
<223> n equals a,t,g, or c

EP 0 742 270 A2

<220>
<221> SITE
<222> (4767)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4768)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4769)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4770)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4771)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4772)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4773)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4774)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4775)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4776)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4777)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4778)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4779)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4780)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4781)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4782)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4783)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4784)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4785)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4786)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4787)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4788)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4789)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4790)
<223> n equals a,t,g, or c

<220>

<221> SITE
<222> (4791)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4792)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4793)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4794)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4795)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4796)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4797)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4798)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4799)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4800)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4801)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4802)
<223> n equals a,t,g, or c

<220>
<221> SITE

<222> (4803)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4804)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4805)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4806)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4807)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4808)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4809)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4810)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4811)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4812)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4813)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4814)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4815)

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4816)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4817)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4818)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4819)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4820)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4821)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4822)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4823)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4824)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4825)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4826)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4827)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4828)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4829)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4830)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4831)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4832)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4833)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4834)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4835)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4836)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4837)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4838)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4839)
<223> n equals a,t,g, or c

EFS - Web 2.0.5.6

<220>
<221> SITE
<222> (4840)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4841)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4842)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4843)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4844)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4845)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4846)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4847)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4848)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4849)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4850)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4851)
<223> n equals a,t,g, or c

<220>

<221> SITE
<222> (4852)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4853)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4854)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4855)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4856)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4857)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4858)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4859)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4860)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4861)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4862)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4863)
<223> n equals a,t,g, or c

<220>
<221> SITE

09650082 - 051504

<222> (4864)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4865)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4866)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4867)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4868)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4869)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4870)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4871)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4872)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4873)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4874)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4875)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4876)

09500852 - 062101

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4877)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4878)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4879)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4880)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4881)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4882)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4883)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4884)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4885)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4886)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4887)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4888)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4889)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4890)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4891)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4892)
<223> n equals a,t,g, or c

09/504,805

<400> 2034

```
tattnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn     60
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn    120
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn    180
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn    240
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn    300
nnnntgagat agaatctcac tctgttgccc aggctggggt gcagtggtgc gatctcagct    360
ccccacaacc tctgcctcca gggttcaagc aattctcctg cctcagcctc ctgagtatct    420
gggattacag gcatgcacca ctacgcttgg ctaatttttg tatttttagt agagacgggg    480
tttcaccatg ttggccaggc tggtcttgaa ctcctgacct caggtgattc gcccgccttg    540
gcctcccaaa gtgctgggat tacaggcatg agccaccgtg cctggctgaa agttcatttt    600
caatagcata gtccagacca tttttttttct aaatgtgcta ccagaatcaa agaaataata    660
acattccatt aaaacaaata aaatggcatt aaattaaatg ttctgcataa tttaagagcc    720
ctgaccaatt ttagtctttt ttttttttt gagacagagt ctcactgtgt cgcccaggct    780
ggagtgcagt ggtacgatct tggctcactg cagcctccac ctcctgggtt caagtgattc    840
tcctgcctca acctcccgag cagctgggat tacaggcatg tgccaccata cctggctaat    900
ttttatatct ttagtagaga tggggtttca ccatgttggc caggctggtc tcaaactctt    960
gacctcaggt gatctgcccg cctcggcctc ccaaagtgct ggcattacag gcatgagtca   1020
ctgcgcctgg cctagtctat tattaacaaa taaaaatttt aatacataaa aatggatgga   1080
tattttctag agccttaatt aagtaattca ctccaaatgt ctttttttttt ttttttttta   1140
gctagtaagt ggagacactt tgaaacatgg tgcttaaaaa aaaacacact acctacctgg   1200
tgggctgttt catggtgaaa taacttattc tgtataattt gaatgcaatt cagatactat   1260
gtagatgtta aaaagctaag ttaacataaa atgtacatca tgaaacgtca ccttacttga   1320
cggcattaat acatttttttc cactaaaata cttgtaacca tggccatcag tatgaagaaa   1380
aattttaaac acgatgaaag gtggaaacgt ttcacctcta aatctgaaat aaagataaaa   1440
atttagttat ttggcatcag gttttgggct cagttgcttt tccccccttat acttaagata   1500
gttcatatag tttcttgcat acagggtaaa ggctatgtca gagcatgtaa agaactggta   1560
atgaaatgga tcacatagga tgtaagaccc acactttggt gtactcacaa ctattctcat   1620
acctgtgtaa gactgaatac agaatgggag atgagagcta ctctcatggc aacttttagc   1680
cacagagtca tgcctcggtt tctttacata acaaatgtaa ataagaataa cacatttact   1740
ttgtaattaa gttctgagaa gttacaagaa tttaaaaaat ccatatctaa gatttcctca   1800
tattaactaa gtacttcttg aaataaatca gcatagatac attacctgaa tctaatttta   1860
cactgcatag taggatcctt aataagctta gcctctaagg gggccacttt cttcagtatt   1920
tcatgtgtta catagaattc ctgaaataaa ggacagtgct gtaaaaggaa agcagtatcc   1980
cacccagaca caatttatgg actataacag aggcaacgtg gtaaagtgaa cattatgctg   2040
gacttggagt tctgaagggg tgggtttttg ttttggcacc tccacttact atctgtgtag   2100
ccttgagcca gttacttaat cattttggcc tccaactttg gttatctgtc ccttttagag   2160
atcaaaggca ctattatttc cctatgacag cacttttcac aatatattat aattacttat   2220
caacttgtct gtgcctccta ctagactgta agcttcatga aggtagggat ggtggctttt   2280
ctctttacca ctatattcct agcatctaat acagtgcctg gaacacagca gatgcttaag   2340
```

EP 1 204 750 B1

aagtatttgt tgaatgaatc actgtaagat gaggatgata atagtaataa gttactagct 2400
tttaagcacc ttttatgtac catatactac tatgttaggt gccttatata cattagctca 2460
tttaatcctt acatcagcaa cactatgaga atttttttgtt tgttttgaga cagagtctcg 2520
ctccgtcgcc caggctcgag tgcggtggca tgatctcggc tcactgcaac ctccgcctcc 2580
caggttcaag cgattctcct gcctcagcct cccgagtagc tgggactaca ggcacctgcc 2640
accacgcccg gctaattttg tatttttca gtagagacgg ggtttcacca tattggccag 2700
gctggcctgg aactcctgac cttgtgagcc gcacgcctca gcctcccaaa gtgctgggat 2760
tacaggtgtg agccaccact caggctgcag tgcaatggca tgatctcggc tcaccgcaac 2820
ctccacctcc caggttcaag tgattctcct gctcagcctc ctgagtagct ggaattacag 2880
gcatgcgcca ccatgcctgg ctaattttgt atttttaata gagatggggt ttcttcatgt 2940
tggtcaggct ggtctcgagc tcccgacttc aggtgatcca cccgcctcag cctcccaaag 3000
tgctgggatt acaggcgtga gccactgcac ctggcccatt atgagaatat tatcacgcct 3060
attttacaga tgagaaggct gaggctcagg gaatttttgt aatttataaa aaggcataca 3120
ggtagtgaat ggggaagcca ggattcattt agttctgttt gactctaaag tcccaactct 3180
ttcccccaaa caaccccaac caaccccgtt atgcctatga taatcacata aaaatgtaca 3240
ctaaagagct tttaggctgg gcactgcggc tcacgcctat aatcctggca ctttgggagg 3300
ccaaagcggg aggatcacct gaggtcaaga gttcgagacc aacctggtca acatggtgaa 3360
accccatctc tactaaaaat acaaaaatta gccaggcgtg atggcaggcg cctgtagtcc 3420
aagctatttg ggaggctgaa gcaggagaat cgcttgaacc cgggaggcag aggttgcagg 3480
gagccgagat cgtgccactg cactccagcc tgggtgacag agcaagactc tgctcaaaat 3540
aaataaataa atagctttta aaaggacaaa gcattattaa tttaaggtat taaagtatta 3600
ctataacaga taaaaaagaa tttccttctg ttacaaaagt ctaaaaatac tatgaaacca 3660
gcattataaa attaaataca agttccatat tcaaagacaa tggataatag acctgaaatg 3720
ccaggagttt acctgggtgg gttttctctg aagtattcag acggagtctt gctctgtcgc 3780
ccaggctgga gtgcagtggc tcaaactcgg ctcactataa cctccacctc cccggttcaa 3840
ggtagctggg attacaggcg cacaccacca tgcccggcta atttttttgt atttttagga 3900
gagacggggt attcaccatg gtgaccggac tggtctcgaa ctnnnnnnnn nnnnnnnnnn 3960
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 4020
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 4080
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 4140
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 4200
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 4260
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 4320
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 4380
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 4440
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 4500
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 4560
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 4620
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 4680
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 4740
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 4800
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 4860
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnaaaaaaaa aattagctgg gcatggcggc 4920
acgcacctgt agtcccagct actagggagg cggaggcagg ataatccctt gaacctgggt 4980
ggtggaggtt gcagtgagcc aagatcatgc ccctgcactc cagcctgggc aacagagtga 5040
gacttcatct caaaaaagaa aagaaaaaaa agagtatcac taataata 5088

<210> 2035
<211> 1191
<212> DNA
<213> Homo sapiens

<400> 2035
aaaaaatgta agctgaaatg atgacgtgtt cttttagaag gtttatcata gcaactacta 60
taggcagtga ttctaagaag atgctattct ttttttccat tgctttgtct agttttttt 120
ttttaaatct gtttttgtgc ctttgtaatt ctagggttat tggtatagtt ctcaccatat 180
cttgaataca gatgcttttt cctttggaaa taatttctca taaagcacat tgcttatagc 240
tgcttccctt ttcccagagt agtaaaagtt gtgatacaag acagtgatat cagctgggcg 300
tggtggcaca cgcctgtaat cccagcacgt tgggaggcca aggcaggcag atcacttgag 360
gccaggagtt cgagaccagc ctggccaaca tggtgaatcc ccgtctctac taaaaataca 420

cacaaaaaat tagctgggtg tggtggtttg tgcctgtagt cccagctact cgggaggctg 480
aggcacgaga attgcttgaa ccagggaggt ggaggttgca gtaagctgag attgcaccac 540
tacactccag cctgggtgac agaacgagac tctgtctcag aaaaaaaaaa aaagagacaa 600
tgatatgaaa aggtcttaca tgaatgagtt ttacgcatga ttcaatctgt aagtcctata 660
aattattttt gatggatggt atctattttc ttcctattag tagtttgggg caaaaataaa 720
tttaactgaa tgtaaaaata ttcagctcta tggggagctg agaagaacta aatattttca 780
gacacttgtt atgtgcaggt tgtttggcat atatttttaa aaatctttat aataccattt 840
tgaattaaat tctatcccca tttaacaaat gaggaggtgg tttctattct taagtaactt 900
tcccaaaatc actcaattaa gtggcaaggg tgggatttaa atcgaagcct atactctttc 960
acttgtttcc aaagatgcca aactcaaaat gtggctaaac agtaaatctt gagcaaagaa 1020
atgatttact aggaagcagc acaatagaac atactggatg taggaaatgt tatatatctt 1080
gatctcattg gtggtaacac aagtatatac atatgaaaaa gttagtttta tccttactgt 1140
tagtactcag tgctcttatt attcctcaaa aatgaaaaaa aaagtaaaaa a 1191

<210> 2036
<211> 1192
<212> DNA
<213> Homo sapiens

<400> 2036
aaaaaatgta agctgaaatg atgacgtgtt cttttagaag gtttatcata gcaactacta 60
taggcagtga ttctaagaag atgctattct ttttttccat tgcttggtct agttttttt 120
tttaaaactc tgttttggtg ccttggtaat tctagggtta ttggtatagt tctcaccata 180
tcttggatac agatgctttt tcctttggaa ataatttctc ataaagcaca ttgcttatag 240
ctgcttccct tttcccagag tagtaaaagt tgtgatacaa gacagtgata tcagctgggc 300
gtggtggcac acgcctgtaa tcccagcacg ttgggaggcc aaggcaggca gatcacttga 360
ggccaggagt tcgagaccag cctggccaac atggtgaatc cccgtctcta ctaaaaatac 420
acacaaaaaa ttagctgggt gtggtggttt gtgcctgtag tcccagctac tcgggaggct 480
gaggcacgag aattgcttga accagggagg tggaggttgc agtaagctga gattgcacca 540
ctacactcca gcctgggtga cagaacgaga ctctgtctca gaaaaaaaaa aaaagagaca 600
atgatatgaa aaggtcttac atgaatgagt tttacgcatg attcaatctg taagtcctat 660
aaattatttt tgatggatgg tatctatttt cttcctatta gtagttttgg gcaaaaataa 720
atttaactga atgtaaaaat attcagctct atggggagct gagaagaact aaatattttc 780
agacacttgt tatgtgcagg ttgtttggca tatattttta aaaatcttta taataccatt 840
ttgaattaaa ttctatcccc atttaacaaa tgaggaggtg gtttctattc ttaagtaact 900
ttcccaaaat cactcaatta agtggcaagg gtgggattta aatcgaagcc tatactcttt 960
cacttgtttc caaagatgcc aaactcaaaa tgtggctaaa cagtaaatct tgagcaaaga 1020
aatgatttac taggaagcag cacaatagaa catactggat gtaggaaatg ttatatatct 1080
tgatctcatt ggtggtaaca caagtatata catatgaaaa agttagtttt atccttactg 1140
ttagtactca gtgctcttat tattcctcaa aaatgaaaaa aaaagtaaaa aa 1192

<210> 2037
<211> 228
<212> DNA
<213> Homo sapiens

<400> 2037
tcgaggtcag gagattgaga ccatcctggc taacatggtg aaaccccatc tctactaaaa 60
atacaaaaaa aattagccgg gcgtggtggc gggagcctgt agtcccagct actcgggagg 120
ttgaggcagg agaatggcgt gaacctggga ggcggagctt gtagtgagcc aagatcatgc 180
cactgcactc cagcctgggc gacagagcga gactccgtct caaaaaaa 228

<210> 2038
<211> 711
<212> DNA
<213> Homo sapiens

<400> 2038

aggagatgaa actagagatt tgtgccaaat tgtgaaaggc cttgactgcc ttgcttcttg 60
ctaaacagtg gaatttatca acccactgag acaaagtcag ttaagatttt tgagccttcc 120
atatatttag ctgcttatat ttaatgtctt gtctttaaaa ataacacgta tgacttgttg 180
tttgcatgct tttgcatata taacttattt gaagttaggt gcttctactg attgactttg 240
acttttgtt cacaaaaata tagggatctt gatttatgac tggaccactt aatgtattaa 300
tttgcactgt gttatatcct aaacttttaa aactactcat gactaatgtc tttcaccaaa 360
ctgttaccta cgaactttct aaagaaatgt gtgacaaagg cgtgattagt ttcatttgct 420
ctgccatttt tagctgtata tgtgataaaa catgttttaa tacatctctt tttaacttcg 480
attttatttg gaatttttga atgagctgtt tgtttgtttt taagcaaagt aattggagtg 540
aactttcttt gattcccagg ttttcttttt tccccttttt tctttttta ttgcattggt 600
agatgcaggg caagaaattt attactctaa atttgtgact cagaatttta aaactaaatt 660
aacttcataa atgcgctcac ttttttctta atgcattacg tctaaccccc a 711

<210> 2039
<211> 374
<212> DNA
<213> Homo sapiens

<400> 2039
cctctctcta caagatggta taaaatttag tattatttta aagaaataat acctagcagc 60
agtaacctgg cagcccaaag gctgtatatg gcccgtagat gtgtatattt atgtattttg 120
tatcagcatt taaaactagg agattttgta ttaaaataca acatttagat ttgttggaaa 180
aatttaaaaa gtctgacaaa actgtacctt tatagtactc ctttatagga gtcagaggct 240
ggagtcaagt gttaactgtg ttggacttgc ttttcagttt gacagttcat ggtatgccaa 300
cacctaggct gtttttcagt tgccatttat tatcatatgt gctctgctgc ttttcttacg 360
atagagaaac atgt 374

<210> 2040
<211> 710
<212> DNA
<213> Homo sapiens

<400> 2040
aggagatgaa actagagatt tgtgccaaat tgtgaaaggc cttgactgcc ttgcttcttg 60
ctaaacagtg gaatttatca acccactgag acaaagtcag ttaagatttt tgagccttcc 120
atatatttag ctgcttatat ttaatgtctt gtctttaaaa ataacacgta tgacttgttg 180
tttgcatgct tttgcatata tacttatttg aagttaggtg cttctactga ttgactttga 240
ctttttgttc acaaaaatat agggatcttg atttatgact ggaccactta atgtattaat 300
ttgcactgtg ttatatccta aacttttaaa actactcatg actaatgtct ttcaccaaac 360
tgttacctac gaactttcta aagaaatgtg tgacaaaggc gtgattagtt tcatttgctc 420
tgccattttt agctgtatat gtgataaaac atgttttaat acatctcttt ttaacttcga 480
ttttatttgg aatttttgaa tgagctgttt gtttgttttt aagcaaagta attggagtga 540
actttctttg attcccaggt tttcttttt ccccttttt cttttttat tgcattggta 600
gatgcagggc aagaaattta ttactctaaa tttgtgactc agaatttaa aactaaatta 660
acttcataaa tgcgctcact tttttcttaa tgcattacgt ctaaccccca 710

<210> 2041
<211> 1646
<212> DNA
<213> Homo sapiens

<400> 2041
taaaaaaaga aaatacagta agtagccaca taaaccgctt ctagctgggt ccactggtcc 60
ccctgcttct tgtttattaa cggaatctgt tcaggggctc tagggctcag agctttaggg 120
gagtctgagc ccttctccag ccctggggtg atgggtcttg attgatccag gtcaaattct 180
ccacagattt aattctggcc aatgaatatg agaagaaatg agaaggtgga aaggtgtctt 240
agtctacttt ttgctgctat aataaaaata ccaatacatg gggtaaatta taatgaagag 300
aaatttatct catggagttc tggaggctgg ggagtcccaa aatcaaggtg ttggcatctg 360

09550082 - 050700

gtgaggagct tcttgctgtc caccccatgg tggagggtgg aagggcagaa agagagagag 420
ggctggaggc caataggtgg ctgaactcat ttttttatga ggaacccact cccataataa 480
cagcattaat ccactcatga gagcagagcc cccatgaccc aaccatttcc cattaggtcc 540
tacctcccca cacccactgc actggggatc aagtttccaa cacatggaac tttgggagac 600
acattcacga catagcagag gaccactgga gaaaggaagg tttttaaaga tttttttag 660
gacactatgg aagtgatagc cattggacat ggatggtgtt tttgtttttg gcatgggaaa 720
aggcttatac aactctggtc aacttggcaa cactaatcaa aagtcaaaat ctcctttgac 780
cctagggatc ccctactatt aacagtatta tatcttatag aacctaggta tttaggaaag 840
aaaaaaatgt tcaaagatgt attgacattt aataaaagca aataactgga cataacccag 900
ctatccaaat acaggctatc aggaaacact gtgaaggact ttgaaatagg tcttgcccac 960
tgcccccacc cctgcctcca attactgagt gttctgtcta atctagccca cctttctgag 1020
ttgattccct ttcatttcac tgcctttgag ctactttaca attacgtaaa ttaagggaaa 1080
ctgataatgc agatgattct tgttcataga aatgcaaatt gtgaccaatg gaatataact 1140
gattattgtt ctgcaggtat cagccaattt tgccagtttt gtaactacga agcaaactca 1200
tttcagcatt cctgctaggc ttataattat ttgttctttg gattctcctt tgagccaatt 1260
aaagtgtcct actggttctc tcaataatta acaagttaaa tacaatcatc tttaacatgt 1320
tacttttata tttgtatgag tcataatttt aacttctaaa aaaattatcc tttaacaagg 1380
tagttaagta aatttaatgt tcatgtggta taatttactt agcagccctc ttaaaacagt 1440
tataaaaacc atatggcaac agggacaaat actcctgata aaaatggcaa gtggggaaaa 1500
aagcagaaat gcaaaatttg tactacgttg tgattaaagc taaacgttgt aagtgcttag 1560
ggcaagaaat aggaaggaga aaaaaaattg aagttggatt tgtttgttag ggtggtagga 1620
tcctggatta aaaaaaaaaa acaaaa 1646

<210> 2042
<211> 510
<212> DNA
<213> Homo sapiens

<400> 2042
gaggttcctc ttcaaagact ttcctccctg tctaattaag aataaatagt aacttctctt 60
aggagcaaaa cttattcaaa gacctgtgct aacattctta aatatctgct agccgtaata 120
aagaaatcaa tgtactttat gttcttagct cccacaattt agcctatttg ccctggcaat 180
gcttatactg gtccaagcaa gcattaggtc atagcctgtt cctcttcctt atctgaaggt 240
gtttttacgt ttctcagcat tccacaagtt acttcctcct tcattctcct ctgcctttgc 300
ctcttttaaa aagttctaag ttgctagcca atcaggacaa atacagaatg tgaggtcccg 360
ttccagccaa tggaaactgg acacagcagt aaagtggact tgtcaagtta taaatgaccc 420
tgtctccttt gttcggtgtt ctctcgtggc aaaactgctg gcgagtgtac cctttctgca 480
gaaagtataa aaatgacctt gctgaagaaa 510

<210> 2043
<211> 1972
<212> DNA
<213> Homo sapiens

<400> 2043
tcacccaaca atgtttttt catgttgatc actttactaa agcgaacaat tggggtttta 60
ccaaaattgt gaaggatttt attcttccat acttatgtct gtgttcaggg tcatacagat 120
tctacttttt ccttttagtt taaggtattc tcttggagat ttaatgtact taaatttgac 180
cacaatttat tgagagcata ttctgtgtca gacattgcac tctgcactag atattcagga 240
atttctaaaa agaatgttaa cattgctgtt acatagtcag ttactgatca cattcttttc 300
ctctcaactt ttttcaaaat aggaatctgc ggtatgtttt cacgtatgga gttcaggtca 360
ggcttagggg tccctgacaa tgtgaatagt tttaagctgg gcctcaattc gtggtaccct 420
tatactaatt taacaagccg tggactctag gttccaccaa aaatattttg ttccatcctc 480
tctggtttca gtccatggtg tacagaaaga aaactaagga acttcagccc caaattgtca 540
aattttgcta cttaagaaac agaagattta aatctatcat tttgtcttat attccagagt 600
tgactggttc ctcctgtctt taacttcttg tccttgaagg gtattctaat tttcattcag 660
aaatatgact tctcataggg tttgtgttag atattttcag ggccagatgg atatgatgtt 720
cccatttctg ttttattgtt aaactactat tccttttgag ctgtaatgaa caattcattc 780
tgagaggcaa tatatgtttt cagtaattga cttgaataaa agtaaatgtt aaacatggag 840

09650083 - 092204

WO 2004/050705 PCT/US2003/038202

ttactaagtt aatacagtgg gtattagtac taatttgttc aaattaagat agaattctta 900
atttgataaa tagaattctt atattacagc atcagtccaa ttggattgat agtttgtaga 960
aaggtaattt cttacatgag gaaagacagg ttttctttct cttagcaagg tattaatgca 1020
aaaatgacct cttcatttcc taccagcttc cagaagggaa atgctggtta ggaggtaaat 1080
tcaatttact ctacaagcaa acttcacatc tgttatgctg aagtcagagt ttatctttct 1140
tgttatgtgg aacctagaaa tataccatga ggaatactga aaaataaact agcagaaatt 1200
ttgcgtgatg ctgaggattt ttagatggct gcaaaatggg tgaaagtaat ataaacttaa 1260
caaagaatgt tgtcacaact ctctggaact tagtactgtt tttcaactaa caaatggaag 1320
atttgtgaga ctaggtcgac ttaatgtgat ttcaatgcag taattactgt gtggcatggg 1380
catggtaaga gataggcctt ttctagaaat attctcatct ctgtttttt tagttgctct 1440
tacttagatt tatattaact cagcttcaca ttttcatttc tttttatttt attttaaaca 1500
atgagaaaaa tactccacga tgtcactgat ttagttatca gatttgcttt atttctgtat 1560
ataataggta atgtgagtac aggaaatata tctgaaaagg ttacttgtac ctaaatttta 1620
agttagatca tttaaaaatt acttataagt ctcttgagtg ttttatatag tagggcagat 1680
ggaaaaactt atttgatatt catttttggt acctcttagg aaaataattg ggaatgtatt 1740
cagttggaaa aaatgttgag aagagtgttt tatataatga ttatttagta aaacattaaa 1800
aataatttct tattctggag gtttatagac atcaaaattg acaaagattc atggattata 1860
catttcatca aggtaccttt aagcgatttt ttaaaaaaaa ttctgactct aacaatgcat 1920
gctcattgta gagcgttaaa aatacaaaaa catgcaaaag aaaaaattaa aa 1972

<210> 2044
<211> 105
<212> DNA
<213> Homo sapiens

<400> 2044
ttttttgtat ttttagtaaa gacggggttt caccatgtta gccaggctgg tcttgatctc 60
ctgtcctcgt gatcctcccg ccttggcctc ccaaagtgct gggat 105

<210> 2045
<211> 949
<212> DNA
<213> Homo sapiens

<400> 2045
gtcatgttta agtggggata atgacattgg catacctgct tgctagagtt aatgtgtggg 60
tcatgagata acgaatataa caaatatttg gaaaagtact atgttgaaat attttaaaat 120
aaaatttaaa tccctcttca tttagaaagg atttgaggca gctaaatgca gaggtgtaag 180
atggtttttt ggttaggatt gtttctgagc tgtgactctg tagtcacttt cttactcagc 240
cctgccactc agctgtattc ctctgtagct ctgggcagac gactctgaac acggcttcat 300
attggccttc catgagtggg tgaagggcat agtcatctgg cagttttacc tgctgttcta 360
tgcatgtctc tccagcgctt gcttattttc cccttctgca aacattccat tcatgccatg 420
ggcattcagt acagtcctgt aagcaagggt aggggcggca caccaggtgg atttaagcgc 480
aaagacagga cgactgcttt gccacaggcg cctttacagc cagcagtgaa cagttagaca 540
tattcacctt cctctaggtg gaaaacagtc ctcttctcag tagccctctc atgttcttga 600
gacccatttg atataaataa caatgttgca ggaaatttcc tgaaggaact gaaatgaacc 660
atagaaacga gatcattctt ttcctaccac acagctggga ttagactgct tagtttgtac 720
ttgcagcact tttgcagtat gggccgtatt aaaaaaaaaa aacatttaac actcagctat 780
gggtacaaag atagtcactg aaacattatt atttacttt atttatatat ttatttttga 840
gatggagtct cgctctgtcg ccaggctgga gtgcagtggc gcaatctcgg ctcactgcaa 900
cctcagcctc ccaggttcaa gtgattctcc tacctcagcc tcccgagta 949

<210> 2046
<211> 1359
<212> DNA
<213> Homo sapiens

<400> 2046

aattttggtt tttgttttgt tttgtttttt gagatggggt ctcgctctgt cgcccaggct 60
ggagtgcagt ggcgcaatct cggctcactg caagctccgc ctcctgggtt catgccattc 120
tcctgcctca gcctccagag tagctgggac tacaggcacc caccaccaca cccggctaat 180
tttttgtatt tttagtagag gcggggtttc accgtgttaa ccaggatggt ctcgatctcc 240
tgacctcgtg atctgcccgc ctcggcctcc caaagtgttg ggattacagg cgtgagccac 300
tgcgcccagc caattttggt atttttagta gagatggggt ttcaccatgt tgaccaggat 360
ggtctcgatc tcttgacctc atggtccgcc tgcctcggcg tcccaaagtg ctgggattac 420
aggcatgggc cactgcacct ggctgcatta ttattattat tattttattt tgagttaggg 480
tcttgctctg ttgtccaggc tggagcacag gggtgcagtc atagctcact gcaggctcga 540
acctccaaag ttcaagtggt ctttctgccc cagcctcttg agtagctgga actacaggtg 600
cacaccacct ggctaatttt ttatttttttg tctagaggca gggtcaccct atgttgccaa 660
ggctgatctt aactcctggg ctcaagcaat cctcctgcct tttcctccca aagttctggg 720
attacagaca tgagcaactg cttctggcct gaagcattaa gagcaaaaag aaagtggtaa 780
tcaccatgta ctgatatgga tatagtacca agatatgtta ttaagtgaat aatgcatgtt 840
acaaaacagt gtgcataata tgatgcattt tgataaataa atttatgtat atatgcacat 900
attgttttct ctggtaggaa agaaaagcat aaacagggtt tctctttgat ggatggagtg 960
gggtagtgag gggagaagtt cttatttttc catttaatac tactccttgg tgtttgaatt 1020
ttacagctgt atacagtatt aagtttttttt ttttttttg agacggagtc tcgctctgtc 1080
acccaggctg gagtgcagtg gcacgatctc ggctcactgc aagctctgcc tcccgggttc 1140
acaccattct cctgcctcag cctcccgagt agctgggact acaggcgtcc gccaccatgc 1200
ccggctaatt ttttgtattt ttagtagaga cagggtttca ccgtgttagc caggatggtc 1260
tcaatctcct gacctcatga tccgcccccc tcggcctccc aaagtgttag gattacaggc 1320
gtgagccacc gtgcccggcc agtatgaagt atttttaaa 1359

<210> 2047
<211> 294
<212> DNA
<213> Homo sapiens

<400> 2047
tcttggcctc ccaaagtgtt aggattacag gtgtgagcta ccactcctga ccccaagaca 60
atatcttaac tgtaaaaatt aaactctacc atattttaaa aagctgagat agtataaatg 120
tttataataa aacataaaac caacatttct cacaagtctt tgtaactagt agagactgta 180
gttgttctgt ccagatataa gtgtggtata tcaacttggc acttagcaac attgatattt 240
aatttgttaa atttttgtta ggaagaggtg ttttcagatc tcaggtgtct ttgg 294

<210> 2048
<211> 12710
<212> DNA
<213> Homo sapiens

<400> 2048
cttgccactt tgctgtctac agctccaatc acatccttca ccaggctcaa ggactgtgct 60
agatcttcct gctccacttc attgtcttgg aaggaaagaa taattctgtt ttttatggct 120
ctttttggac aagggcagaa gcaagggaat cctgacttct cactccatat catcttttcc 180
ctttgtgact atgctatcag agggaagcca acacgtcaga gatcatgtgc ctatccttct 240
tgctgtcata agtttgattc taaaaaaagt cagaagtttt caatgatata aataatatgc 300
aatcatatgt tgtgctctga aataaaagga actaaagact tctaggaggg acagtaatag 360
caggaagagc aaccaagttt ttttttttttt atttgtttta cttaattttt aatgtactgc 420
cttgtaatct ttaaaataac tacctaggaa cagaattagc caagagagag aaaccagtaa 480
ttactgatta agtgaaaaac agcagcaatt ctagcacttc tgggaataac tagtggaaat 540
tatctcccag cctagtgata acagaatact gttcaggtca ttgaactctg gatggaatca 600
atgtgttccc tttccttctt gctatcatct atcctaagtc tggtaacata acagtccaaa 660
ttttcattca acaaaattca agataaaaca caaggtctct tttagacata ctaaagcatg 720
aaatagcact tccatggggc ttccagtact actggccaca gaggaaacag tccatgacca 780
tacaagaccg agttagaaag gagacttacc tttggtacac tgcaatattc tttggaataa 840
aactgggtac ttggtaatcc gctgagttac aagcaatatg cactctggaa ttccaagcct 900
tctaacaact gaactgctca tcttcttctg caagggagta aacagactgt gaggaatcac 960
atgaaaaagg ctctagtgaa agccgacagg gacacatggc tctcaacaat aacggggatt 1020

09500882 - 090402

```
ttcatgtttc ttatcaatac ctttacaaag gcttgaaaac gcttatcctt ggcataaagg   1080
tctttgaagt agtttacaga ctggttatgt tgcccacaaa acttgccata tgtcttcttt   1140
aaacgttctg cattctcacc tgaaaactgc agagaaaaga gaacagaagt tatgccatgg   1200
ggcgccaaac tcataatacc attttgtaaa atgtttccag tctagttgta aaagtcaaga   1260
gcgcttcctc ataaattctc ccaaaagaat gaaatggtgc agcagctttg gaaagcagtc   1320
tggcagttac tcaagaggtt caactttaaa tgggtagact atatggcata tggattaaat   1380
ctcaataaag ctgttataca gatttgaaaa acaacaaaaa attaaagaaa ctttatgtac   1440
tgtgcacacg gaaaatgcaa aatgtattct aacttctatt tgtcataaac agagtaataa   1500
aacaatgaga ttcactagga gtttttcatg agacaatctt aaatatctga ccttgataag   1560
ttagacagac atgacaaaca gccatcatac ctaggtatct gtttgtacta cttacttcag   1620
gccagcagtc ctaataattc tatgaggccc ttaaatcatt cccaaatgtg tgcaatctca   1680
atgattcctc taaaggtatg ttcactttgc actaaatcaa tgaatttctg tatgcagttc   1740
ataaaataca tgctaattat tgatttccat gtactacaaa cctccagagg caacacaaat   1800
tgatccttac caaaaaactg gaaagaagga tcagggtaga ttttcacttc accatttacc   1860
aatggaggag ctgagacaga gggacggtaa gttatctgct catatgacaa agcaaatgcc   1920
ccaaaggttg atcctaccac tggcacacag aacgagcaaa cggatactat gagttaaact   1980
gtgaattcta gcaccaaaga tcttactagg ggttgtacac aagtacaagg aggtacaaat   2040
ggtaatacaa gtcaaagttt gatgaagtac taagttagag aaagtaaaag ttagatgaaa   2100
ccagagagga ggggcagaga gagagaaatg gaaatgccca aggggatgtt tcaggaggaa   2160
aagtcatcac ttgtaggtct taattttgag ctctatctgt tgcagctatc tgtgttcatt   2220
taccgcactg catttgcatt tatttcataa catgcttact tttactccta ggagttccct   2280
gaggcagagg cctaagccat atcccccttt gtagttctac ctggcattta atagatgctc   2340
agtaaatacc tgaaaaatga atgagtgaat gtgctaataa attaatgaag tgaggggtat   2400
gggctcaaga acacaaagga aagacaaaat ttacaattct cagacaaatg ttccaacaat   2460
taagcctctg cttctacaca gcagcagata tttgcccaaa atctttgggg aatttgcatc   2520
tttggggaat ctgcatcttt ggggaaatac ctagtcagat gtacatgtta tatacccctc   2580
tgcctgtaaa ggttatactg gcaatgtgtt tttcaagaag aatattttaa aaagaaacat   2640
taaaatctgt ctatgacaat cacatctaca agtaccaaag taattttagc tgaatttttt   2700
ggagtatgac taaaaccata ccacaccttg atgaaagtat caacaataca tattttatta   2760
agcattttac agatagtcac ttattcaact ttctgtgctt cagctggttt ttagacacat   2820
gagatccttc tgatttgagg cagaggggaa agttgaagat ttccaacaca cacacacaca   2880
cacacacaca cacacagagt ttgtttttaa atgttgagct ggggtctctc actctctcgc   2940
ccaggctgga gtacagtggc acgagcatca ccatggctcg ctgcaacttt gaactcctag   3000
gctcaagtga tcctcccacc tcgggctcct gagtggttgg gaccacaagt gtgcactacc   3060
acacctggct catttttttca ctttttttttg tagagacagc tcttggtacg ttgccaggct   3120
agtcttgaac acctggcttc aagcaatcca tccgcctcag cctcccgaac tgttgggatt   3180
acaggtgtga gccagtgtgc ccagccccaa atatttaaat aattttcaat ttttttttttt   3240
ttgagacaga gtatcactct gtctcccagg ctggagtgca gtggcatgag ctcggctcac   3300
tgcaacttct gcctcccagg ttcaagcgat tcttatatct cagtctccca tatgccacca   3360
cgcctggcta atttttgtat ttttagtaga gacagggttt tatcatgttg gccaggctgg   3420
tcttgaactc ctgacctcaa gtgatccgcc ctcctcatct cccaaagtgc tgggattaca   3480
ggcatgagcc actgtgcctg gccatattaa ttgatttctt aaactatact gtttctgatg   3540
atggcacaga ctctgaggaa gaaaaactaa gttttactga gcatctatca tatgcattag   3600
gtactttata tataccctcc ctttaacttt ccaaaataac attaggagag aaaccctact   3660
gtctgcattt tacagaaaag gaaatcaagg ctccagagaa attaaataag ttccctgagc   3720
ttacacagat aataaatggt agaaagaaga tgtgaatgca tggctgtgga accccatgac   3780
ttccctttt cccagtgtat gtaagaacct gagatccttc ccattctcac ctgatttaca   3840
agcacatccc ctatcctctt gatgagaaag ttcttttcac ttttatccac cagagactcc   3900
ttcttccgct ccagaatcct ctggaagaat tggctatgga tactgatcag ctcatccaaa   3960
caggggaaca gcttttctac catctgctgc tcaaaaagca gatccgccat catcccctgg   4020
ctgtacacac cactcatgat cttgagagtg cggacatgat gaaactctgt ctgcatcaac   4080
tctaaaagga ggaaaaagat caagtgtcag gaacactctt ttataagcat tcgccctcag   4140
agatcatctg ctgcagtcgc aaagctagtt tagagcccaa tttgaacctt aaaattgggt   4200
caacagctat ctttccccta aaagtgttct cgtttttgt ttttgtttt tttttaagac   4260
aggttctgct ctgtcaccca ggctgaagtg caggctgaag tcatggctca ttgcagcctc   4320
aacctcctgg gctcaagcga tctttctgct ttagcctctc gagcagctgg ggctgcaggt   4380
acatgccatc acgcctggct gatttttgta ttttttatag aaatggggtt tcactatgtt   4440
cccaggctag tcttgaactc tgggctcgag tgatccaccc gcctcagcct cccagagtgc   4500
tgggattaca ggtatgagcc gctgagcctg gtcaagtgtt ttcgtcttat tcctctattt   4560
ttcacgtgtc ctattttctg ataataggta ccccggattc catcagtctt aaattatgac   4620
ttccaaagag gtcttcactg gattcagcac ctgtcgtaac tgactgtata cccagttctc   4680
```

```
agaaatgact tgtgtttagt ctagttttta gtgtaggtaa ggaaaaaaac tgagatatct   4740
ctttctagga ctgctgtata aataagtact cacatataag tacaatgttc agtagaactg   4800
aaaacagaag agtggggcaa aaaggagata ggataccaac aggaccacgt ctctgtacct   4860
taaagttttt aaaggaaatc ttttcaagaa gccacatact aaaaaactga tttttcatag   4920
tccaacaaat tactgcttaa aaatgctgga caatggaaat caaatataat cagagcaaaa   4980
tgaagactct caccatatat tacttcttgc cgtttgacca catctttctt ttgctgtttt   5040
agaaacttgc tgtctattat ccgactccaa gactctgctt ccagctgttt ggactcaatc   5100
tcaaagtctc ccagtagttg tccttcattc atgtctgtac ctactcctca atatatcaaa   5160
aaatcaatat cagaatcagg tttgtgacct gtaaaataag cctatgttgg actttcctca   5220
agatgatagt tgatttcata agacacatga atacagggga tattcacaga gatcatattc   5280
tagtaccaga aaaaaatcaa tatcctgttc aggagtgaca gactctacat tcgagactta   5340
ggttaacagt aataaacatg acataaatca aacatgatta agacatgact tctatctaca   5400
cgaagttaag aattggaagg gacctggtac cttttcatat ttaagagagc aggcttacaa   5460
ttgctctgtg agctagaact gtacatgtaa aaaagtctaa gggaaggaaa agatttgtac   5520
taaagagtag gcccacatcg aaataatgga catccttcac ttgacagctg ctggatgagt   5580
ctgattacgc agtcatgaca aagcactgga cactttactg acaatttaga gaatcttcac   5640
gggatacaga agaggcaggt actgtcactc cattaagact tatgttctag gtaatgacac   5700
acacacagtc cctacagagg cataaaataa aggccataac ttcctcttac cctcatcagt   5760
aagtgattct gttgactcat tgaccttgct gattttattt agtgagtctg ttgaatgaga   5820
caggaatttc caggtgtttg acatgttctc atcattgcca actctgggga caaaagaaaa   5880
atacatactg tcaaatacat tctgataacc tatggcttgc attcttaaat gagtacctga   5940
agactctaga atgacaactg gctggaagta ctacagtgac tgaagacaaa ttgcttatgt   6000
cggggccaca gcaacatgca catggcctgg taacaaagtc gggagcattt agtatcactg   6060
gagactcaaa ttctgaggac tttttgagcc tttttaaaga aagtgataag aagcaagggg   6120
aactttcttc catcaaacca tgtacacatt atataagaaa ctttctgttt aaaacttatt   6180
gcctaaccaa tacactgttt tttctgttct ctagataact acagatctag cacttacaat   6240
caactatgtt ctctttggac tttctcaatc ccaactcacc agctagcaca gcaggcaccc   6300
aattgatgtg tgagtagaca caatagcaag aacactttaa agaccaactt ttgaaagtta   6360
caatgcatac aaactttagt aatgttacaa cttttgaaaa gtacactttt ggaaataatg   6420
agaatacaaa gacaaaacaa aacaaaacaa aacaaaaata cctgaaactt tttagaggag   6480
gagaaaacat tagccagcac agaggttagg aattacaaac aaaaggagac ttttgcatcc   6540
tttagttagg aatttttgctc caagataggt taaagagata ctctgagtcc tacatttgaa   6600
atggcttatt cacccgacgg gaaggcaggc atcttaccca aaatagtcag caacatcatt   6660
atcagccccc tgctaaccac ttgacagcca aggcctggcc aggagaccag aaaagaaact   6720
cagtgcaaac gagtgagtga gaacctaata gtaataattg gctcagcact cacctccatg   6780
aaactgactt aagtgttaaa aggcaaagat gtaaaacaga ggtaagaaga aacaaaacaa   6840
ccaggtttac ttgaacaaca gaaaagcatg acatctgtaa gtggttgcaa cccaaaattc   6900
tgaattaaat cacccttttt cctattccta cttattttga tctaaaaaat catcttttta   6960
gaactcagat tcttcaaaag tagggctgat gatatacaaa aagcctacag caaccagcct   7020
gctaagggta tttaaaggag atccttgcga cagaatgacc atcatgacat gcatcagaaa   7080
cataatcccc atcgtccttg tctgcaccaa cccatgacct tatagattta tttcttaaaa   7140
aaaaaaaaaa gctttttgtc atatgatgtg attattatgc tctggtcacc tagatgccaa   7200
ctgtgctatc tttaaatatc tccacttacc cagtaatgtt ctgtatggag acacttttgg   7260
agagcgagac actctgctgg gatcgtctat tggcaaatat tggggtggta gcggtttcat   7320
ccaccaggag gactgcggac cgaggacgct ccttgggctg tgaggctgca aaaggaggac   7380
actaactgaa gcatcaccca tccagctcca cctggtactg acccatctga caaataacaa   7440
gcagaagtaa ggcgctttac agtggatttg ccctggaact gtaagtttat ataaaaactc   7500
catggaggag aggacactaa ctgaagcatc acccatccag ctccacctgg tactgaccca   7560
tctgacaaat aacaagcaga agtaaggcgc tttacagtgg atttgccctg gaactgtaag   7620
tttgtataaa aactccatgg aggatagttt ggtgataact attgaaattg taaatgccta   7680
tattcttcga tccagcaatt tcacttttag gctatgttta ttttacaaga tatacctgca   7740
tattcgtgaa atgatgttat gtccaaagtt attcaatgca acaccattgg taaaagcaaa   7800
agactgaaaa tgacatgagt atcacaagaa gactggtgaa taagttatac tacaccacac   7860
agcagaatac aatgccactt acaaaaaata aggacacttt ccaagtactg acacagatag   7920
atctatctcc aagatctatt aaggggagga aaatcaaagt gcagaacaaa gtatataaca   7980
ggctatcttt catgcttaaa agagagaaaa ataatccaag ttgtatttac tttaacaagc   8040
gaactccagg aaaataaaca aaaaaaacta agaagagtgg ttacctctgg ggtgggacag   8100
gcaacgggga taaagaatcc tgtgggagta ttacatattt taatatttaa gctgcaaata   8160
agattgaaag aatttctttt ttttttgaaa tgcagtcttg ttctgtcgcc caggctggag   8220
tgcagtggcg cgatcttggc tcactgcaag ctccgcctcc tgggttcatg ccattctcct   8280
gccgcagcct cccgagtagc tgggattaca ggcacccgcc accatgcctg gctaattttt   8340
```

09550082 "090102

```
gtatttttaa tagagacggg gtttcactac gttggccaga ctggtctcaa actcctgacc   8400
tcatgatctg cccgcctcgg cctcccaaag tgctgggatt acaggcgtga gccactgcac   8460
ctggccccaa gattgaaaga attttaaggg taaaaggaac ctgagagata actgggagca   8520
gcgttcttta ggaccgttca ccatgaagac atctggagtg cctgttagat atggaatctc   8580
agcccccctt gtcttctagg ggtggaaccc aagagtctac atatcttaca ggctcaagtg   8640
attcttctgc gctccctgct agcgagcata gattttgatg atttccttta atttacagat   8700
gaggaaaatt taacacttgt ttaacacctg taactacaga tgacccctga acaacatggg   8760
tttgaactac atagatcccc ttatatgtgg aatttcttct gcctctgcca cccttgagac   8820
agcaagacca acccttcttt tcttcctctt ccttcttggt ctactcaatg tgaaaacgac   8880
aaggatgaag acctttatga tgatctactt ccacttaaca aacagtaaat atattttctc   8940
ttccttatga tttttaaaat aacatttttt cctttggctt aatttattgt aagaatacag   9000
tatataatac acataacaaa caaaatgcat taattgactg tttatgttat tggtaaggct   9060
tctggtcaac agtaggctat tagtaggtaa gttctggggg agtcaaaaag ttttatgtgg   9120
atttttgact gcatgggggt ggggctggca cacctatcat ccgagttatt caagggtcaa   9180
ttctaaattg ttctcatagt gcatatttct cattaacatg actaaagagg aaactggaga   9240
tctaatttgc taaagtggtc acgctggcac ttgggaacat ttttccctgg taatggactt   9300
gctgtcccat tcacaggttg cattatctgt ccatccccag gagtgtcaag aggtgaagga   9360
aataagactg gggtggtagt tatgacttca cagtatttca ggatgtcttt gactcaatga   9420
gcattaatat aatcattaat ttccaattca aattctattt acaagatgat gacacaataa   9480
aatagcagaa acccgacatt ctaaaacctg accagattct agctgcagaa agtacacaag   9540
gattatggga tgtggcccta cccctctgcc cccaccccca cccccaccca agagaaaaag   9600
agcaagtggg tagaaaagag aatgagctta agagttaaag ggcctggagc ataacctgaa   9660
tgtttctgaa gggaggtcac tgagcggata aaatctgatg gaggaagaaa acactagttc   9720
ttgaagaatt gcaaggatgt ggatgggtca gaagaaaaaa gagaggacaa ttctgatgag   9780
aagaaccatg gaatgaaggc agaagtaatt atgtagtatt aatgtaaaag ggagacacag   9840
agtagaagat gaagcaggta gaaggaatca gtgaaagggc tggaaaagca gaatgatgtt   9900
aggcagagct cataataact tgtatctaaa agccagcata ggggggaaga aaataacagc   9960
tttccttatt tgtaaccaat ccatattcta cccaagtaag tgactcaata ttgctgtttc  10020
cttatttgtg atgatcatag cagtgaaagc taacacttaa ggaatgttta ctgctaagta  10080
ctttataggt atgatctgat ttaaacctga ctaccaccct atgatactat tatcgtcccc  10140
ttttacagag gaagaaaatg aggcacagag aggtttggta atgtccagtt acacagctct  10200
taagcagtgg tgtcagactt gaatccatac aattagaatt cacaatctgt actctacacc  10260
actatgttgc ctcagtggag tacaacagga ataagaatat ttgtgggagg gccaggtaca  10320
gtggttcacg cctataatcc cagcactttg ggaggccaag acagacagat gccttgaggt  10380
caaaaattcg acaccagcct agccaacatg gtgaaaccct atctctagta aaaatacaaa  10440
aattagctgg gtgtggtggc tcacacctgt aatcccagct acttgggagg ctgaggcagg  10500
agaactgctt gaacccagaa ggcggatgtt gcagtgagtg gagattgtgc cactgcactc  10560
cagcctgggt gacagagtaa gactcttgtc tcaaggaaaa aaaaaaaaat acttgtgggg  10620
atcaaaggta atactcatga accttgcaca taataggcat ttgtttttaa gaaagacatg  10680
aaaataagaa agaaaacaga cttctgaaac aacagataat gtcacaagaa aaaaagcatt  10740
ttaggaagct agacataaaa agtatgtgga atgggtaaga tcacagacta aaagtgggta  10800
tcaacctgga gaagctcctc ttctagtcat ctacgtgtga agatggataa aaaccagatt  10860
aaatatatct aaagggaatc actctcttct gggagtgtag actagtatag ccattcagga  10920
gctatctgga agtactcaga gaaactgggc ataaaggagc ggttttcaag cttgagtggg  10980
catcagaatc acctggagga tctattaaaa cacagaccag gctgggtgcg gtggctcatg  11040
cctgttatct cagcactttg ggaggccaag gcatgaggac tgcttgaggc caggagtttg  11100
agacgagcct gggcaacgta gtgagacccc gtctctacaa aaaaattaaa aaatcagcca  11160
ggcatagcgg cgcacacctg gagtgccagc aactcaggaa tctgaggtga ggggatttct  11220
tgagcccagg agtttgaggt tacagtgagc tatgatcaca ccactgcact ccagcctggg  11280
tgacaaagca agaccctgtc tctattaaac acactcccac acaccacaaa aaaacacaga  11340
atgctggtcc catcccacgg tttgtgattc acagatcagg gtggggccca agaatcttta  11400
cttctaaaaa actacatttt caagaacact gcctgggaaa agtctcacag aggctcccat  11460
ggagccagct aagaagatat taatcattgc attatttatg gtagtagctg gaagcaaagt  11520
aaatattctg tctctagggg aactttaaat gtgaaatatg cttatgaaag aataccatgc  11580
catagtctga aacaatagcg tacaataaca tgcatatctc aaaacaatat tgagtgaaaa  11640
aaataagcag aacatataag cataagtcat attatctaat ttaaattcac acaaaataat  11700
acatttttt caaagtatac atatgtctaa aaatatggca gattagaagg acatacatta  11760
aatatactaa agtaggaatg agacagggaa tggggagtga aaagggaaaa gtatcagtaa  11820
aaccaaagtg gagtcttcta tgcactggtg aaaatggttt gatgtgaatg gaagagtgtg  11880
atttactcaa ttctgaataa catttgaggt ccttagaaat aataaaaaaa aagaactatt  11940
ttctataact tctcagttta gaaagaagtt taggccgggc atggtggtgc gtgcctgtaa  12000
```

tcccagctat tggggaggct gaggcaggag aatcgcttga accagggagg tggaggttgc 12060
agtgagccga gattgtgcta ttgtactcca gcctgggcga cagagagaga ctccgtctca 12120
aaaaaataat aaaaaaaaaa aagtttaaca agccagatct catttgattt gtatgattgt 12180
aaggcactaa aaacaagtct tttaattctc aactactatt aaagaggaag ttgagatgcg 12240
caggggtcac ttgcttaaac acacagggca aaggtgctgc ctttaagcta atacacagac 12300
tgttttagag accttccaag agggtttgat ggtataatgt tatatgggta aaggaatctg 12360
caggataaaa cagcagcctt ctctcactta ccacaaaata ggtattcata tcttgactat 12420
gaataataac tgaatattac aacagcattt ttacattcag aaccagaaag tcagaaaggg 12480
aattgagagg tgggctgagc tacttacgct tgtttctcat aatgaccgtg ggcagtgatg 12540
atgtgtcatg tgcctgaagg ctccctttgg gctgctaaag agaaagaaag taagtccatt 12600
gacaattcac ctctgacaag ccctgagaag ccgagtagga agggagcaag cagttcagct 12660
tcctttccca ctctgctttt tgcactgccc taagcaccct gtgtcccagc 12710

<210> 2049
<211> 8243
<212> DNA
<213> Homo sapiens

<400> 2049
cgagtgatcc acccgcctca gcctcccaga gtgctgggat tacaggtatg agccgctgag 60
cctggtcaag tgttttcatc ttattcctct atttttcacg tgtcctattt tctgataata 120
ggtaccccgg attccatcag tcttaaatta tgacttccaa agaggtcttc actggattca 180
gcacctgtcg taactgactg tatacccagt tctcagaaat gacttgtgtt tagtctagtt 240
tttagtgtag gtaaggaaca aaactgagat atctctttct aggactgctg tataaataag 300
tactcacata taagtacaat gttcagtaga actgaaaaca gaagagtggg gcaaaaagga 360
gataggatac caacaggacc acgtctctgt accttaaagt ttttaaagga aatcttttca 420
agaagccaca tactaaaaaa ctgatttttc atagtccaac aaattactgc ttaaaaatgc 480
tggacaatgg aaatcaaata taatcagagc aaaatgaaga ctctcaccat atattacttc 540
ttgccgtttg accacatctt tcttttgctg ttttagaaac ttgctgtcta ttatccgact 600
ccaagactct gttccagctg tttggactca atctcaaagt ctcccagtag ttgtccttca 660
ttcatgtctg tacctactcc tcaatatatc aaaaaatcaa tatcagaatc aggtttgtga 720
cctgtaaaat aagcctatgt tggactttcc tcaagatgat agttgatttt ataagacaca 780
tgaatacagg ggatattcac agagatcata ttctagtacc agaaaaaaat caatatcctg 840
ttcaggagtg acagactcta cattcgagac ttaggttaac agtaataaac atgacataaa 900
tcaaacatga ttaagacatg acttctatct acacgaagtt aagaattgga agggacctgg 960
tacctttca tatttaagag agcaggctta caattgctct gtgagctaga actgtacatg 1020
taaaaaagtc taagggaagg aaaagatttg tactaaagag taggcccaca tcgaaataaa 1080
tgacatcctt cacttgacag ctgctggatg agtctgatta cgcagtcatg acaaagcact 1140
ggacacttta ctgacaattt agagaatctt cacgggatac agaagaggca ggtactgtca 1200
ctccattaag acttatgttc taggtaatga cacacacaca gtccctacag aggcataaaa 1260
taaaggccat aacttcctct taccctcatc agtaagtgat tctgttgact cattgacctt 1320
gctgatttta tttagtgagt ctgttgaatg agacaggaat ttccaggtgt ttgacatgtt 1380
ctcatcattg ccaactctgg ggacaaaaga aaaatacata ctgtcaaata cattctgata 1440
acctatggct tgcattctta aatgagtacc tgaagactct agaatgacaa ctggctggaa 1500
gtactacagt gactgaagac aaattgctta tgtcggggcc acagcaacat gcacatggcc 1560
tggtaacaaa gtcgggagca tttagtatca ctggagactc aaattctgag gacttttga 1620
gccttttaa agaaagtgat aagaagcaag gggaactttc ttccatcaaa ccatgtacac 1680
attatataag aaactttctg tttaaaactt attgcctaac caatacactg ttttttctgt 1740
tctctagata actacagatc tagcacttac aatcaactat gttctctttg gactttctca 1800
atcccaactc accagctagc acagcaggca cccaattgat gtgtgagtag acacaatagc 1860
aagaacactt taaagaccaa cttttgaaag ttacaatgca tacaaacttt agtaatgtta 1920
caacttttga aaagtacact tttggaaata atgagaatac aaagacaaaa caaaacaaaa 1980
caaaacaaaa atacctgaaa ctttttagag gaggagaaaa cattagccag cacagaggtt 2040
aggaattaca aacaaaagga gacttttgca tcctttagtt aggaattttg ctccaagata 2100
ggttaaagag atactctgag tcctacattt gaaatggctt attcacccga cgggaaggca 2160
ggcatcttac ccaaaatagt cagcaacatc attatcagcc ccctgctaac cacttgacag 2220
ccaaggcctg gccaggagac cagaaaagaa actcagtgca aacgagtgag tgagaaccta 2280
atagtaataa ttggctcagc actcacctcc atgaaactga cttaagtgtt aaaaggcaaa 2340
gatgtaaaac agaggtaaga agaaacaaaa caaccaggtt tacttgaaca acagaaaagc 2400
atgacatctg taagtggttg caacccaaaa ttctgaatta aatcaccctt tttcctattc 2460

09508702.1001

09/760,056 01/12/2001

ctacttattt tgatctaaaa aatcatcttt ttagaactca gattcttcaa aagtagggct 2520
gatgatatac aaaaagccta cagcaaccag cctgctaagg gtatttaaag gagatccttg 2580
cgacagaatg accatcatga catgcatcag aaacataatc cccatcgtcc ttgtctgcac 2640
caacccatga ccttatagat ttatttctta aaaaaaaaaa aaagcttttt gtcatatgat 2700
gtgattatta tgctctggtc acctagatgc caactgtgct atctttaaat atctccactt 2760
acccagtaat gttctgtatg gagacacttt tggagagcga gacactctgc tgggatcgtc 2820
tattggcaaa tattggggtg gtagcggttt catccaccag gaggactgcg gaccgaggac 2880
gctccttggg ctgtgaggct gcaaaaggag gacactaact gaagcatcac ccatccagct 2940
ccacctggta ctgacccatc tgacaaataa caagcagaag taaggcgctt tacagtggat 3000
ttgccctgga actgtaagtt tatataaaaa ctccatggag gagaggacac taactgaagc 3060
atcacccatc cagctccacc tggtactgac ccatctgaca aataacaagc agaagtaagg 3120
cgctttacag tggatttgcc ctggaactgt aagtttgtat aaaaactcca tggaggatag 3180
tttggtgata actattgaaa ttgtaaatgc ctatattctt cgatccagca atttcacttt 3240
taggctatgt ttattttaca agatatacct gcatattcgt gaaatgatgt tatgtccaaa 3300
gttattcaat gcaacaccat tggtaaaagc aaaagactga aaatgacatg agtatcacaa 3360
gaagactggt gaataagtta tactacacca cacagcagaa tacaatgcca cttacaaaaa 3420
ataaggacac tttccaagta ctgacacaga tagatctatc tccaagatct attaagggga 3480
ggaaaatcaa agtgcagaac aaagtatata acaggctatc tttcatgctt aaaagaaaga 3540
aaaataatcc aagttgtatt tactttaaca agcgaactcc aggaaaataa acaaaaaaaa 3600
ctaagaagag tggttacctc tggggtggga taggcaacgg ggataaagaa tcctgtggga 3660
gtattacata ttttaatatt taagctgcaa ataagattga aagaatttct tttttttttg 3720
aaatgcagtc ttgttctgtc gcccaggctg gagtgcagtg gcgcgatctt ggctcactgc 3780
aagctccgcc tcctgggttc atgccattct cctgccgcag cctcccgagt agctgggatt 3840
acaggcaccc gccaccatgc ctggctaatt tttgtatttt taatagagac ggggtttcac 3900
tacgttggcc agactggtct caaactcctg acctcatgat ctgcccgcct cggcctccca 3960
aagtgctggg attacaggtg tgagccactg cacctggccc caagattgaa agaattttaa 4020
gggtaaaagg aacctgagag ataactggga gcagcgttct ttaggaccgt tcaccatgaa 4080
gacatctgga gtgcctgtta gatatggaat ctcagccccc cttgtcttct aggggtggaa 4140
cccaagagtc tacatatctt acaggctcaa gtgattcttc tgcgctccct gctagcgagc 4200
atagattttg atgatttcct ttaatttaca gatgaggaaa atttaacact tgtttaacac 4260
ctgtaactac agatgaccct tgaacaacat gggtttgaac tacatagatc cccttatatg 4320
tggaatttct tctgcctctg ccacccttga gacagcaaga ccaacccttc ttttcttcct 4380
cttccttctt ggtctactca atgtgaaaac gacaaggatg aagaccttta tgatgatcta 4440
cttccactta acaaacagta aatatatttt ctcttcctta tgatttttaa aataacattt 4500
tttcctttgg cttaatttat tgtaagaata cagtatataa tacacataac aaacaaaatg 4560
cattaattga ctgtttatgt tattggtaag gcttctggtc aacagtaggc tattagtagg 4620
taagttctgg gggagtcaaa aagttttatg tggatttttg actgcatggg ggtggggctg 4680
gcacacctat catccgagtt attcaagggt caattctaat ttgttctcat agtgcatatt 4740
tctcattaac atgactaaag aggaaactgg agatctaatt tgctaaagtg gtcacgctgg 4800
cacttgggaa catttttccc tggtaatgga cttgctgtcc cattcacagg ttgcattatc 4860
tgtccatccc caggagtgtc aagaggtgaa ggaaataaga ctggggtggt agttatgact 4920
tcacagtatt tcaggatgtc tttgactcaa tgagcattaa tataatcatt aatttccaat 4980
tcaaattcta tttacaagat gatgacacaa taaaatagca gaaacccgac attctaaaac 5040
ctgaccagat tctagctgca gaaagtacac aaggattatg ggatgtggcc ctacccctct 5100
gcccccaccc ccacccccac ccaagagaaa aagagcaagt gggtagaaaa gagaatgagc 5160
ttaagagtta aagggcctgg agcataacct gaatgtttct gaagggaggt cactgagcgg 5220
ataaaatctg atggaggaag aaaacactag ttcttgaaga attgcaagga tgtggatggg 5280
tcagaagaaa aaagagagga caattctgat gagaagaacc atggaatgaa ggcagaagta 5340
attatgtagt attaatgtaa aagggagaca cagagtagaa gatgaagcag gtagaaggaa 5400
tcagtgaaag ggctggaaaa gcagaatgat gttaggcaga gctcataata acttgtatct 5460
aaaagccagc atagggggga agaaaataac agctttcctt atttgtaacc aatccatatt 5520
ctacccaagt aagtgactca atattgctgt ttccttattt gtgatgatca tagcagtgaa 5580
agctaacact taaggaatgt ttactgctaa gtactttata ggtatgatct gatttaaacc 5640
tgactaccac cctatgatac tattatcgtc ccctttaca gaggaagaaa atgaggcaca 5700
gagaggtttg gtaatgtcca gttacacagc tcttaagcag tggtgtcaga cttgaatcca 5760
tacaattaga attcacaatc tgtactctac accactatgt tgcctcagtg gagtacaaca 5820
ggaataagaa tatttgtggg agggccaggt acagtggttc acgcctataa tcccagcact 5880
ttgggaggcc aagacagaca gatgccttga ggtcaaaaat tcgacaccag cctagccaac 5940
atggtgaaac cctatctcta gtaaaaatac aaaaattagc tgggtgtggt ggctcacacc 6000
tgtaatccca gctacttggg aggctgaggc aggagaactg cttgaaccca gaaggcggat 6060
gttgcagtga gtggagattg tgccactgca ctccagcctg ggtgacagag taagactctt 6120

10/29/2004 20050059

gtctcaagga aaaaaaaaaa aatacttgtg gggatcaaag gtaatactca tgaaccttgc 6180
acataatagg catttgtttt taagaaagac atgaaaataa gaaagaaaac agacttctga 6240
aacaacagat aatgtcacaa gaaaaaaagc attttaggaa gctagacata aaaagtatgt 6300
ggaatgggta agatcacaga ctaaaagtgg gtatcaacct ggagaagctc ctcttctagt 6360
catctacgtg tgaagatgga taaaaaccag attaaatata tctaaaggga atcactctct 6420
tctgggagtg tagactagta tagccattca ggagctatct ggaagtactc agagaaactg 6480
ggcataaagg agcggttttc aagcttgagt gggcatcaga atcacctgga ggatctatta 6540
aaacacagac caggctgggt gcggtggctc atgcctgtta tctcagcact ttgggaggcc 6600
aaggcatgag gactgcttga ggccaggagt ttgagacgag cctgggcaac gtagtgagac 6660
cccgtctcta caaaaaaatt aaaaaatcag ccaggcatag cggcgcacac ctggagtgcc 6720
agcaactcag gaatctgagg tgaggggatt tcttgagccc aggagtttga ggttacagtg 6780
agctatgatc acaccactgc actccagcct gggtgacaaa gcaagaccct gtctctatta 6840
aacacactcc cacacaccac aaaaaaacac agaatgctgg tcccatccca cggtttgtga 6900
ttcacagatc agggtggggc ccaagaatct ttacttctaa aaaactacat tttcaagaac 6960
actgcctggg gaaagtctca cagaggctcc catggagcca gctaagaaga tattaatcat 7020
tgcattattt atggtagtag ctggaagcaa agtaaatatt ctgtctctag gggaacttta 7080
aatgtgaaat atgcttatga aagaatacca tgccatagtc tgaaacaata gcgtacaata 7140
acatgcatat ctcaaaacaa tattgagtga aaaaaataag cagaacatat aagcataagt 7200
catattatct aatttaaatt cacacaaaat aatacatttt tttcaaagta tacatatgtc 7260
taaaaatatg gcagattaga aggacataca ttaaatatac taaagtagga atgagacagg 7320
gaatggggag tgaaaaggga aaagtatcag taaaaccaaa gtggagtctt ctatgcactg 7380
gtgaaaatgg tttgatgtga atggaagagt gtgatttact caattctgaa taacatttga 7440
ggtccttaga aataataaaa aaaaagaact attttctata acttctcagt ttagaaagaa 7500
gtttaggccg ggcatggtgg tgcgtgcctg taatcccagc tattggggag gctgaggcag 7560
gagaatcgct tgaaccaggg aggtggaggt tgcagtgagc cgagattgtg ctattgtact 7620
ccagcctggg cgacagagag agactccgtc tcaaaaaaat aataaaaaaa aaaaagttta 7680
acaagccaga tctcatttga tttgtatgat tgtaaggcac taaaaacaag tcttttaatt 7740
ctcaactact attaaagagg aagttgagat gcgcaggggt cacttgctta aacacacagg 7800
gcaaaggtgc tgcctttaag ctaatacaca gactgtttta gagaccttcc aagagggttt 7860
gatggtataa tgttatatgg gtaaaggaat ctgcaggata aaacagcagc cttctctcac 7920
ttaccacaaa ataggtattc atatcttgac tatgaataat aactgaatat tacaacagca 7980
tttttacatt cagaaccaga aagtcagaaa gggaattgag aggtgggctg agctacttac 8040
gcttgtttct cataatgacc gtgggcagtg atgatgtgtc atgtgcctga aggctccctt 8100
tgggctgcta aagagaaaga aagtaagtcc attgacaatt cacctctgac aagccctgag 8160
aagccgagta ggaagggagc aagcagttca gcttcctttc ccactctgct ttttgcactg 8220
ccctaagcac cctgtgtccc agc 8243

<210> 2050
<211> 184
<212> DNA
<213> Homo sapiens

<400> 2050
ttttctcacc ttcagaagca tggcattctt ccccctttaag acgatttaag ggttgcctcc 60
ttggtaaagc catctatagc ttctctcctc tcctcaccca aggcagtgac tggcaccttt 120
ctcatttata gtaactgtcc gtcttcccca gtagattgct ggtgccttaa gggcagcatc 180
tttt 184

<210> 2051
<211> 184
<212> DNA
<213> Homo sapiens

<400> 2051
ttttctcacc ttcagaagca tggcattctt ccccctttaag acgatttaag ggttgcctcc 60
ttggtaaagc catctatagc ttctctcctc tcctcaccca aggcagtgac tggcaccttt 120
ctcatttata gtaactgtcc gtcttcccca gtagattgct ggtgccttaa gggcagcatc 180
tttt 184

EP 2 278 005 A2 20110126

<210> 2052
<211> 2853
<212> DNA
<213> Homo sapiens

<400> 2052
agtctgtgtc ttttaacggg ggcatttagc ctgtttacat ttaaggttaa tattgttatg 60
tgtgagtttg atcctgtcat tatgatgcta gctggttatt ttgcccgtta gttgatgcag 120
attcttcata atgtcaatgg cctttacaat ttggtatgtt tttgcagtgg ctggtactgc 180
tttttccttt ttgtatttag tgcttccttc agaagatctt gtaaggcagg actggtggtg 240
acaaaatctt tcagcatttg cttttctgtg aaggatttta tttctccttc acttatgaag 300
cttagtttgg ctggctctga aattctgggt tgaaaattct tttctttaag aatgttgtgc 360
caggcaccgt ggctcatgtg tgtaatccca gcactttggg aggctgaggc tggcagatca 420
cctgaggtca ggagttcaag accagcctga ccaacatggg aaaactccat ctctactaaa 480
aatacaaaat tagccagctg tggtggcaca tgcctgtaat cccaactact tgggaggctg 540
aggcaggaga atcgcttgaa cccaggaggt caggttgcgg tgagccgaga tcttgccatc 600
atactccagc ctgggcaaca agagtgaaac tccatctcac acaaaaaaaa gaatgttgaa 660
tattggcccg cactctcttc tggcttgtag tgtttccgca gagaaatcca ctgttagtct 720
gatgggcttc cctttgtgga taacccgacc tttctctctg gctgcccttа acgtttttt 780
cattcctttc aaccttggtg aatctgatga ttacgtgtct tggggctgct cttctcgaga 840
agtatctttg tggtggtctc tgtctttcct gaacttgaat gttggtctgt cttgctaggt 900
tggggaagtt ctcctggata atatcctgaa gagtgttttc caacttggtt ccattctccc 960
catcattttc aggtacacca gtcaaacata ggtttggtct tctcacatag tcccatattt 1020
cttggaggct ttgttcattc cttttcattc atttttctct aatcttgtct tcatgcttta 1080
tttcattaag ttgatcttca atctctgata tccttttttc cacttgatcg atttggctat 1140
tgatacttgt gtatgcttca caaagttctt gtgctgtgtt tttcagctcc atcaggtcat 1200
tgatgatttt ctctagactg gttattctag ttagcaattc ttctaacctt ctttcaaggt 1260
tcttagtttc cttgcagtgg gttagaatgt gctcctttag ctcggaggag ttacccacct 1320
tccgaagcct acttctgtca attcgtcaaa ctcattttcc atccagtttt gtttccttgc 1380
tggcgaggag ttatgatccc ttggaggaga agaggtgttc tggtttttgg aattttcagc 1440
cttcttgtgc tggtttttcc tcatctccct ggatttatct gcctttggtc tttgatgttg 1500
gtgacctttg gatggggttt ttgtgtggac atcgtttttg ttgatgttga tgctattcct 1560
ttctgttttt tagtttttct cctaacaggc aggcttctct cctgcaggcc tgctggagtt 1620
tgctggaggt ccactccaga ccctgtttgc ctgagtatca ctagcagaca ctgcagaaca 1680
gcaaagattg ctgcctgctc cttcctctgg aagtttcgtc ccagaggggc acccgccaga 1740
tgctagtgga gctctcctgt atgaggtgtc tgttgacccc tgctgggagg tgtctcccag 1800
tcaggaggca caggggtcag ggacccactt gaggaggcag tctgtccctt agcagagttt 1860
gagtgctgtg ctgggagatt cgctgctctc ttcagagctg gcaggcagga acatttacgt 1920
ctgctgaagc tgcacccaca gccgcctctt ccgccaggtc ctctgtccca gagaggtggg 1980
agttttatct gttagcccct gactggggct gctgcctttc tttcagagat gccctgtcca 2040
gagaggagga atctagagag gcagtctggc tatggcagct ttgcagagct gtggtgggct 2100
ctgcccaatt cgaacttccc agaagctttg tttatactgt gaggggaaaa ccacctactc 2160
aagcctcagt aatggtggac gcttctcccc acaccaagct tgagagtccc aggtcgactt 2220
cagactgctg tgctggcagc aagaatttca agccagtgga ttttagcttg ctgggctctg 2280
tggcggtggg atccactgat ccacttggct ccctggcttc agttcccttt ccaggagagt 2340
gaacagttct gtcgctggcc ttccaggtgt cactggggta tggaaaaaaa aaaaaaaaaa 2400
aaaaaaacct tctgcagcta gcttggtgtc tgcctaaatg gctgccctgt tttgcgcttg 2460
aaacccaggg ccctggtagt gtcagcactc gagggaatct cctggtctgt gggttgtaaa 2520
gaccatggga aaagcatagt atctgggttg gaatgcacca ttcctcattg cacagtccct 2580
catggcttcc ctttggtggg ggaggttgtt ttctcacccc ttgagcttac cgtgtgaggt 2640
gatgcacccc ccctgctttg gctcgtgctc tgtgggctgc acccactgtc taacctgtac 2700
caaagagatg agccaggtac cttagttgga aatgcagaaa tcacccactt tctgcattga 2760
tctcactggg agctgcagac ctgagctgtt cctgttaggc catcttgcca gccactcata 2820
ttttactttt aagtgattag gttgtttggg aga 2853

<210> 2053
<211> 2853
<212> DNA
<213> Homo sapiens

09504800.070204

<400> 2053
agtctgtgtc ttttaacggg ggcatttagc ctgtttacat ttaaggttaa tattgttatg 60
tgtgagtttg atcctgtcat tatgatgcta gctggttatt ttgcccgtta gttgatgcag 120
attcttcata atgtcaatgg cctttacaat ttggtatgtt tttgcagtgg ctggtactgc 180
tttttccttt ttgtatttag tgcttccttc agaagatctt gtaaggcagg actggtggtg 240
acaaaatctt tcagcatttg cttttctgtg aaggatttta tttctccttc acttatgaag 300
cttagtttgg ctggctctga aattctgggt tgaaaattct tttctttaag aatgttgtgc 360
caggcaccgt ggctcatgtg tgtaatccca gcactttggg aggctgaggc tggcagatca 420
cctgaggtca ggagttcaag accagcctga ccaacatggg aaaactccat ctctactaaa 480
aatacaaaat tagccagctg tggtggcaca tgcctgtaat cccaactact tgggaggctg 540
aggcaggaga atcgcttgaa cccaggaggt caggttgcgg tgagccgaga tcttgccatc 600
atactccagc ctgggcaaca agagtgaaac tccatctcac acaaaaaaaa gaatgttgaa 660
tattggcccg cactctcttc tggcttgtag tgtttccgca gagaaatcca ctgttagtct 720
gatgggcttc cctttgtgga taacccgacc tttctctctg gctgcccttа acgtttttt 780
cattcctttc aaccttggtg aatctgatga ttacgtgtct tggggctgct cttctcgaga 840
agtatctttg tggtggtctc tgtctttcct gaacttgaat gttggtctgt cttgctaggt 900
tggggaagtt ctcctggata atatcctgaa gagtgttttc caacttggtt ccattctccc 960
catcattttc aggtacacca gtcaaacata ggtttggtct tctcacatag tcccatattt 1020
cttggaggct ttgttcattc cttttcattc atttttctct aatcttgtct tcatgcttta 1080
tttcattaag ttgatcttca atctctgata tccttttttc cacttgatcg atttggctat 1140
tgatacttgt gtatgcttca caaagttctt gtgctgtgtt tttcagctcc atcaggtcat 1200
tgatgatttt ctctagactg gttattctag ttagcaattc ttctaacctt ctttcaaggt 1260
tcttagtttc cttgcagtgg gttagaatgt gctcctttag ctcggaggag ttacccacct 1320
tccgaagcct acttctgtca attcgtcaaa ctcattttcc atccagtttt gtttccttgc 1380
tggcgaggag ttatgatccc ttggaggaga agaggtgttc tggtttttgg aattttcagc 1440
cttcttgtgc tggtttttcc tcatctccct ggatttatct gcctttggtc tttgatgttg 1500
gtgacctttg gatggggttt ttgtgtggac atcgtttttg ttgatgttga tgctattcct 1560
ttctgttttt tagtttttct cctaacaggc aggcttctct cctgcaggcc tgctggagtt 1620
tgctggaggt ccactccaga ccctgtttgc ctgagtatca ctagcagaca ctgcagaaca 1680
gcaaagattg ctgcctgctc cttcctctgg aagtttcgtc ccagaggggc acccgccaga 1740
tgctagtgga gctctcctgt atgaggtgtc tgttgacccc tgctgggagg tgtctcccag 1800
tcaggaggca caggggtcag ggacccactt gaggaggcag tctgtccctt agcagagttt 1860
gagtgctgtg ctgggagatt cgctgctctc ttcagagctg gcaggcagga acatttacgt 1920
ctgctgaagc tgcacccaca gccgcctctt ccgccaggtc ctctgtccca gagaggtggg 1980
agttttatct gttagcccct gactggggct gctgcctttc tttcagagat gccctgtcca 2040
gagaggagga atctagagag gcagtctggc tatggcagct ttgcagagct gtggtgggct 2100
ctgcccaatt cgaacttccc agaagctttg tttatactgt gaggggaaaa ccacctactc 2160
aagcctcagt aatggtggac gcttctcccc acaccaagct tgagagtccc aggtcgactt 2220
cagactgctg tgctggcagc aagaatttca agccagtgga ttttagcttg ctgggctctg 2280
tggcggtggg atccactgat ccacttggct ccctggcttc agttcccttt ccaggagagt 2340
gaacagttct gtcgctggcc ttccaggtgt cactggggta tggaaaaaaa aaaaaaaaaa 2400
aaaaaaacct tctgcagcta gcttggtgtc tgcctaaatg gctgccctgt tttgcgcttg 2460
aaacccaggg ccctggtagt gtcagcactc gagggaatct cctggtctgt gggttgtaaa 2520
gaccatggga aaagcatagt atctgggttg gaatgcacca ttcctcattg cacagtccct 2580
catggcttcc ctttggtggg ggaggttgtt ttctcacccc ttgagcttac cgtgtgaggt 2640
gatgcacccc ccctgctttg gctcgtgctc tgtgggctgc acccactgtc taacctgtac 2700
caaagagatg agccaggtac cttagttgga aatgcagaaa tcacccactt tctgcattga 2760
tctcactggg agctgcagac ctgagctgtt cctgttaggc catcttgcca gccactcata 2820
ttttactttt aagtgattag gttgtttggg aga 2853

<210> 2054
<211> 421
<212> DNA
<213> Homo sapiens

<400> 2054
tgaggagtgt tttacttcca attctgtggt caattttaga ataagtgtga tgtggtgctg 60
agaagaatgt atattctgtt gatttggggt ggagagttct gtagatgtct attaggtctg 120
ctttgtccag agctgagttc aagtcctgaa tatccttgtt aattttctgt ctcgttgatc 180

tgtctaatat tgacagtggg gtgttaaagt ctcctactat taattgggtg ggagtctaag 240
tctctttgta ggtctctaag aacttgctta tgaattgggt gcttctgtat agggtgccta 300
tatatttagg gtagttagct cttcttgttg cattgaacct tttaccatta tgtaatgccc 360
ttctttgtct tttttgatct tggttggttt aaagtctgtt ttatcagagg ctaggattgc 420
a 421

<210> 2055
<211> 340
<212> DNA
<213> Homo sapiens

<400> 2055
aatttcttgt gtatatgcat cttttacata taaaggctgt tttaaaaatg agttgctgct 60
ttatagtttc ttctttagaa acatataaga ttaaagataa aagaaataga atagggaaat 120
agcctagcta tagaaacagc acttttaaat ttcatatgta cagtgattta ttatttgcaa 180
atcatctact ttttaaaagt atgatacttt attatttgca aattatttaa tttttaaaag 240
tgatttttgt gggaggtcag agttggatgg agaagggtca ttttcatttt tgattagagg 300
attcttgtaa tgacctgatg aaaactgctc tgagggcatc 340

<210> 2056
<211> 340
<212> DNA
<213> Homo sapiens

<400> 2056
aatttcttgt gtatatgcat cttttacata taaaggctgt tttaaaaatg agttgctgct 60
ttatagtttc ttctttagaa acatataaga ttaaagataa aagaaataga atagggaaat 120
agcctagcta tagaaacagc acttttaaat ttcatatgta cagtgattta ttatttgcaa 180
atcatctact ttttaaaagt atgatacttt attatttgca aattatttaa tttttaaaag 240
tgatttttgt gggaggtcag agttggatgg agaagggtca ttttcatttt tgattagagg 300
attcttgtaa tgacctgatg aaaactgctc tgagggcatc 340

<210> 2057
<211> 421
<212> DNA
<213> Homo sapiens

<400> 2057
tgaggagtgt tttacttcca attctgtggt caattttaga ataagtgtga tgtggtgctg 60
agaagaatgt atattctgtt gatttggggt ggagagttct gtagatgtct attaggtctg 120
ctttgtccag agctgagttc aagtcctgaa tatccttgtt aattttctgt ctcgttgatc 180
tgtctaatat tgacagtggg gtgttaaagt ctcctactat taattgggtg ggagtctaag 240
tctctttgta ggtctctaag aacttgctta tgaattgggt gcttctgtat agggtgccta 300
tatatttagg gtagttagct cttcttgttg cattgaacct tttaccatta tgtaatgccc 360
ttctttgtct tttttgatct tggttggttt aaagtctgtt ttatcagagg ctaggattgc 420
a 421

<210> 2058
<211> 2853
<212> DNA
<213> Homo sapiens

<400> 2058
agtctgtgtc ttttaacggg ggcatttagc ctgtttacat ttaaggttaa tattgttatg 60
tgtgagtttg atcctgtcat tatgatgcta gctggttatt ttgcccgtta gttgatgcag 120
attcttcata atgtcaatgg cctttacaat ttggtatgtt tttgcagtgg ctggtactgc 180
tttttccttt ttgtatttag tgcttccttc agaagatctt gtaaggcagg actggtggtg 240

09504207.030502

09509809 - 090304

acaaaatctt tcagcatttg cttttctgtg aaggatttta tttctccttc acttatgaag 300
cttagtttgg ctggctctga aattctgggt tgaaaattct tttctttaag aatgttgtgc 360
caggcaccgt ggctcatgtg tgtaatccca gcactttggg aggctgaggc tggcagatca 420
cctgaggtca ggagttcaag accagcctga ccaacatggg aaaactccat ctctactaaa 480
aatacaaaat tagccagctg tggtggcaca tgcctgtaat cccaactact tgggaggctg 540
aggcaggaga atcgcttgaa cccaggaggt caggttgcgg tgagccgaga tcttgccatc 600
atactccagc ctgggcaaca agagtgaaac tccatctcac acaaaaaaaa gaatgttgaa 660
tattggcccg cactctcttc tggcttgtag tgtttccgca gagaaatcca ctgttagtct 720
gatgggcttc cctttgtgga taacccgacc tttctctctg gctgcccttа acgttttttt 780
cattcctttc aaccttggtg aatctgatga ttacgtgtct tggggctgct cttctcgaga 840
agtatctttg tggtggtctc tgtctttcct gaacttgaat gttggtctgt cttgctaggt 900
tggggaagtt ctcctggata atatcctgaa gagtgttttc caacttggtt ccattctccc 960
catcattttc aggtacacca gtcaaacata ggtttggtct tctcacatag tcccatattt 1020
cttggaggct ttgttcattc cttttcattc atttttctct aatcttgtct tcatgcttta 1080
tttcattaag ttgatcttca atctctgata tccttttttc cacttgatcg atttggctat 1140
tgatacttgt gtatgcttca caaagttctt gtgctgtgtt tttcagctcc atcaggtcat 1200
tgatgatttt ctctagactg gttattctag ttagcaattc ttctaacctt ctttcaaggt 1260
tcttagtttc cttgcagtgg gttagaatgt gctcctttag ctcggaggag ttacccacct 1320
tccgaagcct acttctgtca attcgtcaaa ctcattttcc atccagtttt gtttccttgc 1380
tggcgaggag ttatgatccc ttggaggaga agaggtgttc tggtttttgg aattttcagc 1440
cttcttgtgc tggtttttcc tcatctccct ggatttatct gcctttggtc tttgatgttg 1500
gtgacctttg gatggggttt ttgtgtggac atcgtttttg ttgatgttga tgctattcct 1560
ttctgttttt tagtttttct cctaacaggc aggcttctct cctgcaggcc tgctggagtt 1620
tgctggaggt ccactccaga ccctgtttgc ctgagtatca ctagcagaca ctgcagaaca 1680
gcaaagattg ctgcctgctc cttcctctgg aagtttcgtc ccagaggggc acccgccaga 1740
tgctagtgga gctctcctgt atgaggtgtc tgttgacccc tgctgggagg tgtctcccag 1800
tcaggaggca caggggtcag ggacccactt gaggaggcag tctgtccctt agcagagttt 1860
gagtgctgtg ctgggagatt cgctgctctc ttcagagctg gcaggcagga acatttacgt 1920
ctgctgaagc tgcacccaca gccgcctctt ccgccaggtc ctctgtccca gagaggtggg 1980
agttttatct gttagcccct gactggggct gctgcctttc tttcagagat gccctgtcca 2040
gagaggagga atctagagag gcagtctggc tatggcagct ttgcagagct gtggtgggct 2100
ctgcccaatt cgaacttccc agaagctttg tttatactgt gaggggaaaa ccacctactc 2160
aagcctcagt aatggtggac gcttctcccc acaccaagct tgagagtccc aggtcgactt 2220
cagactgctg tgctggcagc aagaatttca agccagtgga ttttagcttg ctgggctctg 2280
tggcggtggg atccactgat ccacttggct ccctggcttc agttcccttt ccaggagagt 2340
gaacagttct gtcgctggcc ttccaggtgt cactggggta tggaaaaaaa aaaaaaaaaa 2400
aaaaaaacct tctgcagcta gcttggtgtc tgcctaaatg gctgccctgt tttgcgcttg 2460
aaacccaggg ccctggtagt gtcagcactc gagggaatct cctggtctgt gggttgtaaa 2520
gaccatggga aaagcatagt atctgggttg gaatgcacca ttcctcattg cacagtccct 2580
catggcttcc ctttggtggg ggaggttgtt ttctcacccc ttgagcttac cgtgtgaggt 2640
gatgcacccc ccctgctttg gctcgtgctc tgtgggctgc acccactgtc taacctgtac 2700
caaagagatg agccaggtac cttagttgga aatgcagaaa tcacccactt tctgcattga 2760
tctcactggg agctgcagac ctgagctgtt cctgttaggc catcttgcca gccactcata 2820
ttttactttt aagtgattag gttgtttggg aga 2853

<210> 2059
<211> 2853
<212> DNA
<213> Homo sapiens

<400> 2059
agtctgtgtc ttttaacggg ggcatttagc ctgtttacat ttaaggttaa tattgttatg 60
tgtgagtttg atcctgtcat tatgatgcta gctggttatt ttgcccgtta gttgatgcag 120
attcttcata atgtcaatgg cctttacaat ttggtatgtt tttgcagtgg ctggtactgc 180
tttttccttt ttgtatttag tgcttccttc agaagatctt gtaaggcagg actggtggtg 240
acaaaatctt tcagcatttg cttttctgtg aaggatttta tttctccttc acttatgaag 300
cttagtttgg ctggctctga aattctgggt tgaaaattct tttctttaag aatgttgtgc 360
caggcaccgt ggctcatgtg tgtaatccca gcactttggg aggctgaggc tggcagatca 420
cctgaggtca ggagttcaag accagcctga ccaacatggg aaaactccat ctctactaaa 480
aatacaaaat tagccagctg tggtggcaca tgcctgtaat cccaactact tgggaggctg 540

10/21/2005 09:50:56 PM

aggcaggaga atcgcttgaa cccaggaggt caggttgcgg tgagccgaga tcttgccatc 600
atactccagc ctgggcaaca agagtgaaac tccatctcac acaaaaaaaa gaatgttgaa 660
tattggcccg cactctcttc tggcttgtag tgtttccgca gagaaatcca ctgttagtct 720
gatgggcttc cctttgtgga taacccgacc tttctctctg gctgccctta acgtttttt 780
cattcctttc aaccttggtg aatctgatga ttacgtgtct tggggctgct cttctcgaga 840
agtatctttg tggtggtctc tgtctttcct gaacttgaat gttggtctgt cttgctaggt 900
tggggaagtt ctcctggata atatcctgaa gagtgttttc caacttggtt ccattctccc 960
catcattttc aggtacacca gtcaaacata ggtttggtct tctcacatag tcccatattt 1020
cttggaggct ttgttcattc cttttcattc atttttctct aatcttgtct tcatgcttta 1080
tttcattaag ttgatcttca atctctgata tccttttttc cacttgatcg atttggctat 1140
tgatacttgt gtatgcttca caaagttctt gtgctgtgtt tttcagctcc atcaggtcat 1200
tgatgatttt ctctagactg gttattctag ttagcaattc ttctaacctt ctttcaaggt 1260
tcttagtttc cttgcagtgg gttagaatgt gctcctttag ctcggaggag ttacccacct 1320
tccgaagcct acttctgtca attcgtcaaa ctcattttcc atccagtttt gtttccttgc 1380
tggcgaggag ttatgatccc ttggaggaga agaggtgttc tggtttttgg aattttcagc 1440
cttcttgtgc tggtttttcc tcatctccct ggatttatct gcctttggtc tttgatgttg 1500
gtgacctttg gatggggttt ttgtgtggac atcgtttttg ttgatgttga tgctattcct 1560
ttctgttttt tagtttttct cctaacaggc aggcttctct cctgcaggcc tgctggagtt 1620
tgctggaggt ccactccaga ccctgtttgc ctgagtatca ctagcagaca ctgcagaaca 1680
gcaaagattg ctgcctgctc cttcctctgg aagtttcgtc ccagaggggc acccgccaga 1740
tgctagtgga gctctcctgt atgaggtgtc tgttgacccc tgctgggagg tgtctcccag 1800
tcaggaggca caggggtcag ggacccactt gaggaggcag tctgtccctt agcagagttt 1860
gagtgctgtg ctgggagatt cgctgctctc ttcagagctg gcaggcagga acatttacgt 1920
ctgctgaagc tgcacccaca gccgcctctt ccgccaggtc ctctgtccca gagaggtggg 1980
agttttatct gttagcccct gactggggct gctgcctttc tttcagagat gccctgtcca 2040
gagaggagga atctagagag gcagtctggc tatggcagct ttgcagagct gtggtgggct 2100
ctgcccaatt cgaacttccc agaagctttg tttatactgt gaggggaaaa ccacctactc 2160
aagcctcagt aatggtggac gcttctcccc acaccaagct tgagagtccc aggtcgactt 2220
cagactgctg tgctggcagc aagaatttca agccagtgga ttttagcttg ctgggctctg 2280
tggcggtggg atccactgat ccacttggct ccctggcttc agttcccttt ccaggagagt 2340
gaacagttct gtcgctggcc ttccaggtgt cactggggta tggaaaaaaa aaaaaaaaaa 2400
aaaaaaacct tctgcagcta gcttggtgtc tgcctaaatg gctgccctgt tttgcgcttg 2460
aaacccaggg ccctggtagt gtcagcactc gagggaatct cctggtctgt gggttgtaaa 2520
gaccatggga aaagcatagt atctgggttg gaatgcacca ttcctcattg cacagtccct 2580
catggcttcc ctttggtggg ggaggttgtt ttctcacccc ttgagcttac cgtgtgaggt 2640
gatgcacccc ccctgctttg gctcgtgctc tgtgggctgc acccactgtc taacctgtac 2700
caaagagatg agccaggtac cttagttgga aatgcagaaa tcacccactt tctgcattga 2760
tctcactggg agctgcagac ctgagctgtt cctgttaggc catcttgcca gccactcata 2820
ttttactttt aagtgattag gttgtttggg aga 2853

<210> 2060
<211> 421
<212> DNA
<213> Homo sapiens

<400> 2060
tgaggagtgt tttacttcca attctgtggt caattttaga ataagtgtga tgtggtgctg 60
agaagaatgt atattctgtt gatttggggt ggagagttct gtagatgtct attaggtctg 120
ctttgtccag agctgagttc aagtcctgaa tatccttgtt aattttctgt ctcgttgatc 180
tgtctaatat tgacagtggg gtgttaaagt ctcctactat taattgggtg ggagtctaag 240
tctctttgta ggtctctaag aacttgctta tgaattgggt gcttctgtat agggtgccta 300
tatatttagg gtagttagct cttcttgttg cattgaacct tttaccatta tgtaatgccc 360
ttctttgtct tttttgatct tggttggttt aaagtctgtt ttatcagagg ctaggattgc 420
a 421

<210> 2061
<211> 340
<212> DNA
<213> Homo sapiens

09650082 - 062404

<400> 2061
aatttcttgt gtatatgcat cttttacata taaaggctgt tttaaaaatg agttgctgct 60
ttatagtttc ttctttagaa acatataaga ttaaagataa aagaaataga atagggaaat 120
agcctagcta tagaaacagc acttttaaat ttcatatgta cagtgattta ttatttgcaa 180
atcatctact ttttaaaagt atgatacttt attatttgca aattatttaa tttttaaaag 240
tgatttttgt gggaggtcag agttggatgg agaagggtca ttttcatttt tgattagagg 300
attcttgtaa tgacctgatg aaaactgctc tgagggcatc 340

<210> 2062
<211> 340
<212> DNA
<213> Homo sapiens

<400> 2062
aatttcttgt gtatatgcat cttttacata taaaggctgt tttaaaaatg agttgctgct 60
ttatagtttc ttctttagaa acatataaga ttaaagataa aagaaataga atagggaaat 120
agcctagcta tagaaacagc acttttaaat ttcatatgta cagtgattta ttatttgcaa 180
atcatctact ttttaaaagt atgatacttt attatttgca aattatttaa tttttaaaag 240
tgatttttgt gggaggtcag agttggatgg agaagggtca ttttcatttt tgattagagg 300
attcttgtaa tgacctgatg aaaactgctc tgagggcatc 340

<210> 2063
<211> 421
<212> DNA
<213> Homo sapiens

<400> 2063
tgaggagtgt tttacttcca attctgtggt caattttaga ataagtgtga tgtggtgctg 60
agaagaatgt atattctgtt gatttggggt ggagagttct gtagatgtct attaggtctg 120
ctttgtccag agctgagttc aagtcctgaa tatccttgtt aattttctgt ctcgttgatc 180
tgtctaatat tgacagtggg gtgttaaagt ctcctactat taattgggtg ggagtctaag 240
tctctttgta ggtctctaag aacttgctta tgaattgggt gcttctgtat agggtgccta 300
tatatttagg gtagttagct cttcttgttg cattgaacct tttaccatta tgtaatgccc 360
ttctttgtct tttttgatct tggttggttt aaagtctgtt ttatcagagg ctaggattgc 420
a 421

<210> 2064
<211> 4400
<212> DNA
<213> Homo sapiens

<400> 2064
gggaccccag gcttcctttg agacatccac cagcggtgat gggttgggac caatctcccc 60
cactcctctc caccctagca gtaaggtccc cgctctcgat actgccccag cacctgcact 120
ggccctctct gatttcccaa ctccagccca ttccaagtgc tgaaggcggg tcgctaggtg 180
ctgggacctg ggcgcggggc aagaccttgg gctgtgtggg gtgcaggctg gtttactggg 240
ttcacgattg agggagtggt ctgggggtta ggtgtagggc caggctgcgt tgtgctctaa 300
ggggcaggcg gcaggcggtt tgggggggct gtggtcagac agggtggggt ggcggtgggt 360
ttggggaagc cgcagcagcc cgccttgggg tcccgcgagt gccgagggag ctgccggggc 420
atggtggcgc ggggcccgtg gtcctgcccg gcacgacccc cgccccgcag cgccccgcag 480
cgccccgccc ccgcggcccc gctcgcgacg cgtctcccgc ggcgccccgc ccccgcccgc 540
agtgcccgga tgcgggtgac gcgcggccgc catctttccg tcccgggcag ccagcgccag 600
tcggagccag cgcgagccgc cgccgccatc actgccgctg ccaagtcctc cacccgctgc 660
ccccgccatg tgagtcggcc gcccgccacc ctcaccgcgc ttccctgcgc cggccgccgc 720
ccttggcaac cggccgtcgg gagtgcccgg ggtctctcct gcgttccccg cgccccgggg 780
ccaggcccaa gccggtgact gcgcgcgggc ggccgaggag ccccgcgtcc cgggctggcc 840
ggctcgggcg atggccgcgg gaaggagcgg acccagtgtc ctcctgcccc tccccgcccc 900

tgtcaccgcg gccgcctgtc ttttcgggtc gacccggatc gcatctgtga ggtcgccctc 960
agttgacagg cggggaaact gaggccgggg gggcctcgct caaggtcacg cagctcatcg 1020
gcggcagggc tggaccgaga ccagggctta catcgggtgg ccttcctccc gaaaaggagg 1080
actggaggga cgaggatgga caggtggatg ggcggagccc tggctgcggg gccgggaggc 1140
tgcaggccct gggtcttaat ccgtccctgc tcctcaggtc tgctaccgct gccacggccc 1200
cccctgctgc cccggctggg gagggtggtc cccctgcacc ccctccaaac ctcaccagta 1260
acaggagact gcagcagacc caggcccagg tggatgaggt gagtgtgggg ggagtcaaaa 1320
gcagtaggag ggaccctggg ggttggcgta taggtgtagg ggcccatgtt ggtttgggag 1380
tgatgacagt tcacgcctgt gggtttgcgg acaaagatac catgccccat ccctgtctcc 1440
ctgtcagcac gcacttggaa gggcgctggg ggtgttaatc agctttgcta gcctggggtg 1500
tgccagcctg ggcaggtgtg ctctggtgat ggacagagcg cctgaggttc catagaggga 1560
gggtgttgct atgacatctg agatgtcacc agcatgcccc tgatgtgtgc tccttgcatg 1620
tccccaggtg tgctaggcat gttctgtgtg tccttggcat gttaacctgg cagtatcagg 1680
gtgcatgttc catgtgtggc acggtgggca catgtttgag gattgccctc actgaggtgg 1740
gccttggcac acccccctgc ctcgtgggcc cttctcccag gtggtggaca tcatgagggt 1800
gaacgtggac aaggtcctgg agcgagacca gaagctgtcg gagctggacg accgtgcaga 1860
tgcactccag gcgggggcct cccagtttga aacaagcgca gccaagctca agcgcaaata 1920
ctggtggaaa aacctcaagg taagggtggg gacaggaagg aggacaggtg ggtgaatggg 1980
gtatcatagt ttgtcttact gatcctcgcc tctcaccccc agatgatgat catcttggga 2040
gtgatttgcg ccatcatcct catcatcatc ataggtgagt agggtgagaa tggccggggc 2100
cctttccctg gagaggtttc cccagtggat tctaggtttt gaaggtcatt aatctagttt 2160
ttactcttca gccaaaaaca catatagctg ctaatggcaa ttctgattca tctagagcca 2220
aaaactttga tgttatttag cctgcatttt gcctagttct tggcagtctt gttaacattt 2280
ggaaatagga aagctggtgt atccattgag gacccttttag gcctaagagc ccagtctgag 2340
aaccctggaa ttgaggagtg ggagaaagga aaggaccagg ggcttgagac atgaccagga 2400
agccaaccac cccattattt gagagcttgc ggtctcagag gctcagagga ttagggtctg 2460
tggcttcaag gccataccat ggagcggaag ggacctcaga acctacctgt ctagcccctt 2520
gctttgtaga tggaaaaact gagtccaaga gagggtgtca gccagctggg gagtggggag 2580
gattggagca gggccaggcc tgacacactg ctttcttgtt ctctctcttt ctctcccctc 2640
tccctcttcc tcatcttctt cccctctctc cacagtttac ttcagcactt aaatccccga 2700
ggagtctgcc ctgcctagag aagggcctct cccccaaccc tcagccgttc ctccacctct 2760
cagccatatc tttcagcccc cactcccctg gatccgtgtg tgtgtgtgtc cgtgtgtgtg 2820
tccccctgta aatagccagc tgttatttat acatatataa tattatatat atttggtctg 2880
tttgtagttt tattactaga tgatttttcc ggttgtcctt aacacccctt cctgaggttc 2940
ccttcacccc tctctcttgc cttccttccc tttccctttc ttcctgacta gccccaagtc 3000
ccttcatttg catctgctat gcaatagtcc ctctcctttc cttcttcttc cctcagattt 3060
agctgatcct tcctcccacc ctggccttcc tttcctcttt cctcctcact ctccccgtca 3120
tgctccctct gccccgccct caaaaaaaaa aaaaaaaaaa aaaaaacaac agcacctgtc 3180
caggcttcct taggtacatc ttctttgtat ccattgggag gctctgagac tggccccact 3240
tggtcctaag aatcccaagg tctttgggag cgtccagcat gttaattagc gtatcattac 3300
atactgctat ccctttccat ttctttttgt tccatcactc ttctctcaac ctgtgtttct 3360
ttttttactg aggagttagt ccccattagt tcttgtatca cattttcatt tgcacgacat 3420
tactcgcagg tggtggggag cctgggcttt tggggaacca ggctgctctg gtccccagca 3480
ttgcctcctc ctagcccctc tagtccagtt tgcctccctt accctcattt tccaaacctc 3540
ttgtaccctc ctctccctcc cccagctggt atgtaagtgt cttgaagttc agtatgttat 3600
gatggaccaa taattctgcc acttcgggtt tctccctaca ttcctgctcc ccagttttca 3660
tgtggggtac tcaactgaca ttcccatggg gtttccctcc catctgcctg atccacctcc 3720
tcctcccacc aggagagttg ggggttggcc acaattgatc tcttgtgaga ggggtggcta 3780
ccagtgtgtg tgtgggggtc atcactgcct tggggaggag tggggcaggg cagagaatcc 3840
ccccaattcc tgcctgaaat ctctggcctc acccctgctg ggggttggac tgaaaaccct 3900
cctccccaat ttgggggggtg ttgccccatc actgcccagc tcctctgact gccccccctg 3960
aatttagggt gggggtacta gtcactgcca atgtgtgtat gggacttgct ggaaaacggg 4020
gatgcttgcc cctctccagg actattgagc ccagagagag ctgtcctctc attgggtgaa 4080
ctgattgagg aagggtctat tgtcttttta aatggcacaa ttttaagggt ttgagggtac 4140
agtcccttaa cctgccacgg gaggggggccc ccaaactttc ttccccccac acttctggtt 4200
ttctgtgtgg agggggagca gggatatcta agctgtggtg tgaaagggta ggagagatgc 4260
tggaggtggg ggtgctgtgt tttagacccc ccatattatc ccagtgtccc ctgcccccct 4320
cttccccac cccatgcccc caattctgtg gcgcatccag attgtgaaaa tgtacaataa 4380
atgtgtaatg agtaaccagg 4400

<210> 2065
<211> 463
<212> DNA
<213> Homo sapiens

<400> 2065
gtctaagatc ttttttattt ttctattttt ttttttggt tgggggagaa taagatcttt 60
tcttaaccaa tgggaataat attggatcgg aaggtatacc aggaaggttg agaagataca 120
ttggtaatgg actggacttt gcaagaggcc ctgaccttgg gcagggcaaa gtgtgattct 180
caaagtggcc acaggggggc actaggagtt ggtaatggga agtgtcatag ccagcccgtg 240
tctctaagcc cggtgcgccc tgtggtctag ggttcccagc tttcgtttcc ctttactggg 300
gcatgttcct gctgttggac tcctttctac tcctcgattt aacttctaga cgctctgccg 360
tggctcccgt gcagcagtag atgaagtagt tggccatttc tgtgaagcat gtcttccct 420
ctgtgcctaa cccagtgcca gcgcccagat ggggttagta aat 463

<210> 2066
<211> 359
<212> DNA
<213> Homo sapiens

<400> 2066
ccgggactgt cagtgcacaa ggaccaggga cgcggctgct cctctgaggg ggaggaagcc 60
aagagtatct tctcttagat tgggctgagt tcccacaccc agcacacaca ttccctgctc 120
actcacctcc cacagacagc tgggaaatga cacctctggt gacagagcca ctctccgggc 180
ttctgtgggg agcgggtggg gcactgcagt gggggaggat ctcacacccg gaggccctgg 240
gaagccaggg tgggggaggg aggaagctgg ttcctgtttg tcttagagat caaggccatc 300
agcctccctg caccttccag ggatgtagta agcaccccca ccccagggcc aaagggcct 359

<210> 2067
<211> 16146
<212> DNA
<213> Homo sapiens

<400> 2067
gtgtggcgtc acttccggct tccttcagtc cgctggtccc gagcacgagc tgtgagggga 60
ttcacttgtg tgcggaactc ctcggaacca tggtgagcct gactcccctg cctattgccc 120
taccctgct ccgccgtgct cttgccaccc cactgcttcc tctgtcctgc tagggacgta 180
ggctccgttt ttgtctcccc ggccctccgc acatggtgcg agccatgcgc ggggcgtgcg 240
gcctgcgcca ggccagccgg tggagctcac cacgaggggg aggggtggac cgcaaagcca 300
gcgtctcctt gtgcctaggt ctttgcatag tcccggcagc ccaggtccgc gcctcacccg 360
gagcgaagaa atttctagtg tgggacccgc tccgccctcc ttctaggggc ggagcctgga 420
gcgacggggt ctgagccatc agagggtgga ggggccgcag ccttccgagg gtggaagatg 480
gaggccgcgt tccctcgccc gcccggcagg cgtcaccttg atggcctgca acccctccct 540
gcctcattct tagttcaaga tcgtctttag tctcgctgta cgtaactgtc aatctcgctg 600
gtgtataatt tatactcccg ggggccttgt aaatccgaaa agccatgtcg ctctcctaca 660
agtccctctc tcccacttaa atgctttctc cgatgatgga agcttcattt gattgaaaac 720
attgttgtaa atgagttttc tcttagatgt ccacttgtaa gactagtgga aggcacctca 780
gtgtatgtgt tagagtattg gtacttaaac ggaatgcctc ttggttttcc ttttcaggcg 840
tcccttccc ttgcacctgt taacatcttt aaggcaggag ctgatgaaga gagagcagag 900
acagctcgtc tggtaagcct tgttctaagc attgttttaa agataaaact ggaggccagg 960
cgcggtggct tactcctgta atcccagtac tttgggaggc cgaggtaggc ggatgaactg 1020
aggtcaggag ttcgagacca gcctggccaa catggtaaaa ccccgtttct actagaaata 1080
caaaaattag ccgggcgtgg tgatgggcac ctgtaatccc agctactcgg gaggctgagg 1140
caggaggatc gcttgaaccc aggaggcgga ggttgcagtg agctgagatc gcgccattgc 1200
actccagcct gggcgacaga gcgacactct gcctcaaaaa aaaaaaaaag taaataaaga 1260
taaaactgta cttgaagact gtaaagttga ttctgataat ctccttggtt tttactccag 1320
acttctttta ttggtgccat cgccattgga gacttggtaa agagcacctt gggacccaaa 1380
ggcatggtaa gaaaaataga aaagttttat attttaatat tgttttagag cgcttggtgg 1440
aaatataata acaagcgtat taaaatgctt tttaatcttt aaaacgttta attataaaag 1500

acaagtatgt tctccttagt aaaaatcaga gtccccagaa tcaccatccc caatcccatg 1560
cccctcccca atgacaagta ctgttatcat ttgcacgtac atcttctaat attctgttta 1620
tgtagaagta tgtgtacttc attatgtatt ttatactcat gtaacatact gttttataaa 1680
acagatacta tttatcaata ctttttgta gcttgctctt ttaaattcct ttcagtgtaa 1740
gtagataaca ctgccccttt aactgtcaaa tattatcctg taccttaatt attttataat 1800
ttaattatgg ctgtattgat agtttctttc cattgttttt gcagttacgg tgttgaaaca 1860
aaaactagtg tctacctgtg cttctagtgt ttctaggggt agatacatgg tttggttacg 1920
tggtgtatgt attgaaaaca tttgatgaat ggataccaca aaatagctat ccagagtgtt 1980
tatacactag cactgtgtga gaatactgat tgatccatgc attcttcaag atgtgcttat 2040
gtcttaactt gaaccaatta tgttcccttt aggacaaaat tcttctaagc agtggacgag 2100
atgcctctct tatggtaacc aatgatggtg ccactattct aaaaaacatt ggtgttgaca 2160
atccagcagc taaagtttta gttggtaagt ctgaatatac tttttcacca acctaataat 2220
actgtttgtt aacatttttg aaataacttt ataaataggc tgtgttgacc aatcgtactg 2280
tcaattgatg tccactagtt gttaattatc gttgttaaaa tacaagcttc aggagtgccc 2340
gtatgttggt ggtaaaactg ttgcatttca gacctcagag ttccaaataa tttgttgaat 2400
gaggaaccct ggtaagttta gattggtagt gaatattttt ggagaattta gtaagcaaag 2460
aagcaatttt gagttaataa ctaatttctt tttctagata tgtcaagggt tcaagatgat 2520
gaagttggtg atggcactac ctctgttacc gttttagcag cagaattatt aagggtaaga 2580
gcaactaagc aactcttttt tcctactgtg tttttgagta tcagaggtaa tctagtcctt 2640
acttcctctg tctttactat tgaggagtgc ttaataattt tctatttata acttttgttt 2700
tataacttta ttaataggaa gcagaatctt taattgcaaa aaagattcat ccacagacca 2760
tcatagcggg ttggagagaa gccacgaagg ctgcaagaga ggcgctgttg agttctgcag 2820
ttgatcatgg gtttgtatag caaagtacta ctgttctaaa catttagtgt tctttcataa 2880
catgcttaat gcaagaaatc tataggacac tgaaaagcat acacaaagat catcttgctg 2940
cctcacccca ctccaacagt caaacctaca tcagcctcca gagatagcca ctaaagttaa 3000
gtttgggttt ttagtctttt tgtatatatc atcaaaatat acaaataaag caaatagtat 3060
aatactgtat agagaatttg ttagcctctt tttaacctag ttaaatatta agcacatttt 3120
tggatgtcaa ttttctgtgc agtattttaa tagagttaca catttgaata tttggctaga 3180
atgactgtat taacctatct gtagggggag atttgtgtat ttgatgattt ttagcattat 3240
aaaataactt tgtgacgttg cgacatagcc caaaggtttc tagaagtgta attgttgggt 3300
ccaaaggtaa gtgtgtgtgt tttaaggcac ccccaaacct gggctgcaca gcaggtgagc 3360
agcaggtgga aaaattgtct tcccatgaaa ccagtccctg gtgccaaaaa ggtccgggac 3420
cactgtttta aggcacttct atttatttgc ccattcacaa ctgtataata atacttgttt 3480
ttcacgtcct tttatttatt tatttatttt gagacggagt ctcgctctta gagttgccca 3540
gaatggagtg cagtggcacg acttcggctg actgcaacct ctgcctcccg ggttcaagcg 3600
attctcttgc ctcagcctcc caagtagcag ggactacagg catgtgccat catagccagc 3660
taattttgta tttttagtgt agatggggtt tcaccatgtt gctcaggctg gtcttgaact 3720
gacctcaagt gatccatcct cctcagtctc ccaaagtgct aggattacag gcgtgagcca 3780
ctgtgcccgg ccatttctca cattcttgcc aacattagac ttttgcatgc ttgtgtggcc 3840
cccacccctc ttttttttt ggcattttgc cagtttggtg gggaaaataa catctttaat 3900
ttgtgtttct tgattactgc tgaggtttaa ttcttttcat atagcttaca gacttgatca 3960
gttagggtaa aattatctat tgacatgaat atctagataa attttgaaaa gtaaagtagg 4020
gttaatatgt atatttggtt ggttttattt agttccgatg aagttaaatt ccgtcaagat 4080
ttaatgaata ttgcgggcac aacattatcc tcaaaacttc ttactcatca caaagaccac 4140
tttacaaagt tagctgtaga agcagttctc agactgaaag gctctggcaa cctggaggca 4200
attcatatta tcaagaagct aggaggaagt ttggcagatt cctatttaga tgaaggtatg 4260
tatgaatgtc agatacaaga agctttgatt agatgctgag ggctgaatac tgagtgaatt 4320
ctgttttgag accagtgacc ctttacaaag ccagtgaact tgaatttaag gacatatcat 4380
atgtgcaacc atttttgtca ttttattgac agtgtactcc tcttcccgcg ctattccagc 4440
attgttgatg atctctagag tttacttaac taccatgaag ttatttgcag tctctgataa 4500
agaggaaatg ttttctttta ctagaaatca tctattctca aatggtactt ttaccaggat 4560
tatatgtatt ctccaggaag ggtctgggtc agtcaaatca ttgtgttagc tggttgttga 4620
ggatgtacag ttgaccattg aacaacatgg gtttgaatta tgtaggttca caatgcaggt 4680
tttttcaata aatatagtca gccctttgtg tccgtggttt gcacatgtgc aaccgaacgt 4740
ggatggaaaa tgcagtattt gcaggatttg aaacccatgt atatagtggg ccagcttttc 4800
aaatctgctg gttccagtca gcctggaact taagtatgtg gggattttgg tgtatgtggg 4860
cgtcttggaa ccagtcccct tcgtatactg ggggatgact agtttttttt agaaaagaat 4920
taaaaaaaat ttctttaaca aataattatg tatgtttata gggcaagagg atctagttct 4980
taaagagtga taaatgagac ataataagta ctgctttctt agtagtacat ttttgtttag 5040
agtgaagttt tccagatcat cttcacatta tatttacttc acaaaatggc ctgtcaaaaa 5100
gtataggcat tcttatatag agaaggaaaa aaaaagaatt agatggtgct ttacaacttc 5160

09650088.090102

```
tgtttttacc agtggtttgg agtcctggtt ttgttctgtg tcataggtct tgatttattt   5220
taagagagag tcataattct gaaaatactc ttgattaagt ttatatacaa gagctgtgta   5280
gcatttcttt ttttttttt ttgagacgga gtctggctgt gtcacccagg ctggagtgca   5340
gcagtatgat ctcgcctcac tgcaaccact gcctcctgag ttaaggcgat tctcctgcct   5400
cagcctcctg agtaggtggg attacaggcg tgtgccacca tgcctggcta acttttttgt   5460
atttttagta gagacggggt atcgccatgt tgaccaggct ggtctcgaac tcctgaccta   5520
aggggatcca cctgcctcag cctcccaaag tactgggatt acaggcgtga gccaccatgc   5580
ctggccgctg cgtagcattt ctgatagggg ctggtggtag ggaaggagca ttaaaacaag   5640
aatattagta gcacaagcag caccattctt gaatgtctgc tctgtactag gaattgtaat   5700
aggaacttta gtcatttagt catcatgacc tggtgagtga ggattaggtt cacttgaata   5760
gagtagaaaa cccaagataa tggtggcttc ataatggaaa agtttctaat gtaaccaaaa   5820
aaaggcctag aaaggtaggt ggtactgggt ttgtatgatg gttccaaagc agcaggacta   5880
ggctggtaac tagcacctct gctactggtt acattcctgt tttacaaatt agcatttctg   5940
gttggataat ttgtcgaagg ttatatagcc agcagcaggg gcatgatcag ggtcagattt   6000
atctgactcc acggtgtcca tggtttttcc atttttacca ccagcctcaa tacctgaatc   6060
ttcaattttt ctcttgtggt ggtgatttta agctaataaa aatataggac ttaacctatt   6120
gtctttatat tgcaacccat acagatgtgg gtgtagcgta tatctgaaac aaaagtttca   6180
aaatactgtt taattttatt gtctgtactg tgctcttata ttttctgttt catatttttt   6240
aagtaaccca ttaaattgat tttgtaataa ctcttctagt gggatgcttt ataccagaag   6300
tgtccaagga agagaataca gtcatgggtt cctagtttct gtttctggtt gggtcggtaa   6360
agcccccttcc tcctccctct tttctgctta tcactagaga cagaaactaa aatccatggc   6420
tttcaggcgc taaaagccta aaagcaaaac aacaacagaa taaggcaggt tggacaagct   6480
tgcttttatg ccttctaaga gcttggtaaa ttggacttaa atagcttctt tgaaacagtg   6540
atatgataaa gcagacagct ttttataaga tttactaagg ctgctttgaa gtattaaata   6600
tgatactgtt cttatattta ttgtaggctt cctgttggat aaaaaaattg gagtaaatca   6660
accaaaacga attgaaaatg ctaaaattct tattgcaaat actggtatgg atacagacaa   6720
aataaaggta tgtaactcta ctttttaaaa attaaaatta ctgcccaggc agagtggctc   6780
atgcctgtaa tcctagcaat ttgggaggcc aaggtggtgg atcatctgag atcagaagtt   6840
tgagaccagc ctgaccaaca tggagaaacc ctgtctctac taaaaaaaaa aaaatacaaa   6900
attagctggg catggtggcg catgcctgta atcccagcta ttcgggaggc tgaggcagga   6960
gaatcacttg aacccaggag gcggaggttg cactgagccg agattgtgct actgcactcg   7020
agcctgggca acaagagtga aactccgtct caaaagtctc aaaaaaaaaa aaattgctgg   7080
attctataaa ctcaggaatc aattgcacta aaaagcttgg aataggtatg aatctattgt   7140
gtatatacac atatatatac gttggtaaaa atgttgaaat atgctatggg actctttaaa   7200
aagagtaatg aggcctggcg tggtggttca cgcctgtaat cccagtactt tgggaggcca   7260
ggcgggcgga tcacaaggtc aggagttcaa ggccagactg accaatgtga gatggtgaaa   7320
ccctgtcttt actaaaaata caaaaattag ctgggtgtgg tggcgcacac ctgtaatccc   7380
agctgcttgg aaggctgagg caggagaatc acttgaaccc agcgggtgga ggttgcagtg   7440
agccgagatt gccccactgc actccagcct gggcaacaga gcgagactca atctcaaaaa   7500
aaataatgaa actgatgctc tctttatgct tcgtttgtct tagatatttg gttcccgggt   7560
aagagttgac tctacagcaa aggttgcaga aatagaacat gcggaaaagg aaaaaatgaa   7620
ggagaaagtt gaacgtattc ttaagcatgg aataaattgc tttattaaca ggtctgtgtt   7680
tgcttttaag aaaggatttt tttccatgaa agtttatgga atacttcata tttacttata   7740
ttgaattaga ttttttacct aggaactgtc ttagataact tcacttaaat tatggatttt   7800
tgtaatcagt aaattgtgat ttatgcacac ttacagtgac cagaattacg ggattgattt   7860
atacagttac tataataaag aacacttctt ttcatactag taatggatgc attagtacta   7920
tagttgataa actctaatta tataggtaag aaatgcaatc ttgttctaat ttgcatttct   7980
tttacttgtg gtaaaaatgt ttacatgttt tttagtctaa tgtagtttat cttgtaacag   8040
ttgtgagcat aatgttttca tgtaaaatat ttacaggcaa ttaatttata attatcctga   8100
acagctcttt ggtgctgctg gtgtcatggc tattgagcat gcagattttg caggtgtgga   8160
acgcctagct cttgtcacag gtatggaaaa aaggtattgt tttctaacaa acacaatagt   8220
cactcttgaa tttgttattt gttactatat gcaactacct ttaaggagtt tagaatttca   8280
gcagttattc tgaaatctat tctcttggat acctttaatt tagatacata gatacattac   8340
atttacgata ccaagttata taccacattt gccgtaggta tagatttctt tcattgtgtc   8400
actgttttaa aggtagattt ttggccaggt gcagtggctt gtgcctgtaa tcccagcact   8460
ttgggaggcc gaggcagcca gatcgcttga gctcaggagt ttcagaccaa ctttggcaac   8520
attgcgaacc cacatcccta caaaaaaaaa aaattggcca ggtgtggtgg caagcgcctg   8580
tgatcctagc cacttggggg gaggctgagg gaagagaatc gcttgagcct gggaggcaga   8640
ggttgcagtc agcggagatc gtgccactgc gctccagcct tggcgacaca gtgagaccct   8700
gtctcaaaaa aaaaaaaaga tatgtatatt tttttctcac aaacctgtaa gaccgttgtt   8760
aaaatctgaa caaactagag ctttaaaaag tcttaagtct acttacattt atctagttcg   8820
```

09/501,800

tacatttgtt tttattgctt agtaagtagt tgaatgcttt gtgtcctttg tagtagtaca 8880
gttacaatag taacctttat tgaacattta ctgtgtgctg gagagtgggt caagtactga 8940
aacattgctt ttgttaattt taaaaaattt ctgaaagtaa taaacgttag catacgtgaa 9000
acaatcaaca ttgtataatg aaaattagta tacctcaata ccctttaata gaagtatgag 9060
tgatataatt ccagttgtgt caaatagaaa ttgtgtttat aaatcagaca tgtctgtcta 9120
catcacaatg acatgagttc aggctggttg cggtggctca tgcttgtaat cccagtgctt 9180
tgagaggcca aggcaggaag attgcttgaa gccaggagtt caagaccagc ctgggcaata 9240
tagtaagact gtctctacaa aaaattagct gggcgtggtg gcacatgcct gtagtcctag 9300
ctacttggga ggttgaggca ggagatctct tcagcccagg agtccaaggc tacagtgagc 9360
tgtgatcacg tcactgcagt ccatcctaag tgacagagca agaccctgtc tttaaaaaaa 9420
aaaaaaaaaa tgcagcttgt ttgcttttta ttgtggtaat ggtttaaaaa ttattgttta 9480
ttaaattttt acagatttag ggatataagt atagttttgt taatggtttt catagtacac 9540
tctaagccct ggaaaataag tttaacactt ttctagattt taggtccttg aaaatgaatg 9600
aataggttgg aaagttggtt tgggaatgag aattaaggag acctgggtta tgagttgtga 9660
agtcagtagg gctgtcacac tgtttggaac tgccatgaat attagaagaa attatagtgt 9720
actaaccttt ggagagtgga cttggtctca tcccagaatg atctcttaag acgttttttt 9780
taatcatttg agaagcatag tcgtcttcta accaagagac attttccttt aattacttga 9840
agtgggttta cttgctttaa agttacttag gagccattgc gtacttgatg ctttaaggtg 9900
acaaataaac acaatttaag atgctcatgt ttatgtaatt cattctttag ttccacaaaa 9960
taaagatgta agaggccggg tgtggtggct cacgccttta atcccagcac tttaggaagg 10020
cctaagtggg cagatcacaa ggtctggagt ttgagaccag cctggtcaat atggtgaaac 10080
cctgtctcta ctaaaaataa aaaaattagc caggcgtggt ggtgggtgcc tgtagtcgca 10140
gctactcggg aggctgaggc aggagaatca cttgaacccg ggaggtggag gttgcagtga 10200
gctgagattg gcgccactgc actccagcct gggtgacaga gcgagactcc gtctcaaaaa 10260
aaaaaaaaaa aaaagatgta agaagtaaat ggtaataata tattgatggg ataaacatat 10320
cgtaaggtct tgacatgaaa ttgctctata cccagaagaa tgtttattaa gtacaccaac 10380
tgtatgtcta tgaaggtgac cacatggtgg ctcccatcct taaaagctca gtggttgtca 10440
aaggtgtatg atgacattgg ttcttgcaag tgtcattaaa taaatgtctt gcactgggca 10500
tggtggcatg tgccagcagt ttgatctatt caagaggctg aggcagaaag attgcttgtg 10560
cccaggaggt tgtgctatga tggtgcctgg tgaatagtca ttgcgctcca gtctaggcaa 10620
ggtagcaaga cactctctct ttaaaaagaa agaaaagtct catgtagaag gatgaagtga 10680
aaagtttcat aagccaagtt agtcttattt ttggatatga cgtcccaaat atctgttgtg 10740
tctcacatct agaacacaaa gcagtctcag aattttgcca gccaaaagta aaaagaactt 10800
tatacaaatt atgagtataa attagtagtt tcaaagacca gagtctttat gaatttatta 10860
taaaataaat aatagagcat tgacagattt atcagtaagg cataggaaaa gaagggttga 10920
ttgataatat atgcaattca cattatgaaa ggagtagtca gctagagaaa aggattttga 10980
aatggaaacc tgacttttgc ttagttagga aatagggaac gaagtggctg acctgttcag 11040
tttacagcat ggaagatgga gggaaaatag gaatagaaat gagacataag gactaaatta 11100
atttgttctt attaaatttg gtctgggaaa ttcttagtat gcatttcttg ttttttagg 11160
ccttaggaca tttcatttgt gataattaga gatatcaggt gcttattaag cagttcatga 11220
agtgtatagt ggttgactta taggacaaat attttcatgt cttgtgctgg gaattgtatc 11280
atgaggtctt agtcttatag gttggattca gaagagaatc tgaatttaaa ctcaaaagta 11340
actgctttaa gactcagttt aaccttggga aggtagtatt gtatagtgtg tgcttatagg 11400
tctgaagcca gactgcttga gtttgaaccc cagcttttta tattcatcct agttaggtct 11460
ttggatagga aggtaaacct cttggcctca tttttatcat gtgtaaaatg ggataataat 11520
ggagcctatc caagaggatt attttaaaga ttaaataatt agtcgatatg aagtatttaa 11580
aaagagtgcc aggaatataa tcagcaatca atttttaaaa tgtgaaacac attacctatc 11640
attatctatc cattactgct tattagaaaa caggaatttt aagcctgctg tgcatttaac 11700
taatacatgt ttatgtttat aggtggtgaa attgcctcta cctttgatca cccagaactg 11760
gtgaagcttg gaagttgcaa acttatcgag gaagtcatga ttggagaaga caaactcatt 11820
cacttttctg gggttgccct tggtgagtga ttatgtagat cctggttagg gtgtctaaat 11880
tcttgctagg ctctgttgaa gtaaaggtta ttgtagttac tagaatagca tatcttacaa 11940
gtcttaactc ttcagaagca tgatacatac tttgtttcag tctcttgagt caacctcata 12000
tttaccgtgt ctttgtgaac agtgcatgtt caacagtttt ttttccttga taacttagaa 12060
ccattatgag ccttgattgt tggagaatgt ataatacagg aagacaggtc agctttcaga 12120
acccagtaat ataaccaaca ccggcataaa taatagaagg caaacttttt atccctaagt 12180
ggtcactgtg tcttttaatt ttaggtgagg cttgtaccat tgttttgcgt ggtgccactc 12240
aacaaatttt agatgaagca gaaagatcat tgcatgatgc tctttgtgtt cttgcgcaaa 12300
ctgtaaagga ctctagaaca gtttatggag gaggtaagca tttagaaaat gttgaatata 12360
tttttaattt cttaaagtac aatataagtc ataagtggtt ttaatggttc ttacagaaat 12420
cttatattgc ttttgcacta aattttaaaa tgcttggcat atcttaaagt cagtaattca 12480

gtatcttgga gacaactaag cattgcaata ttttattgga attttaatct ttaggctgtt 12540
ctgagatgtt gatggctcat gctgtgacac agcttgccaa tagaacacca ggcaaagaag 12600
ctgttgcaat ggagtcttat gctaaagcac tgagaatggt aagttaatca aaatgagaga 12660
tccgaactta agttttgtgg ttattgatag ttttaaaatg agtagaaaat gaactggtta 12720
atactgcttt taaatttgat tctggagttt ctcctcttcg tgagcagtaa ctgaagcaga 12780
ttttacattg ttcctaaatg tataatttta aaaagctatc ctagttagga gtaaatcagt 12840
ggttcttaca gtagagtgag tagttacttg ttttcttcat tttcatagtt gccaaccatc 12900
atagctgaca atgcaggcta tgacagtgca gacctggtgg cacagctcag ggctgctcac 12960
agtgaaggca ataccactgc tggattgggt aagcaatcaa ggggaacttt gtggccgttg 13020
ttaaaagtaa ctcttttcac taagcttttt ttttcttttg gaacataaag agttacaata 13080
accgtataaa agactctttt ggactttgtc ctcataatca ttacatgtgc tgggaaaatg 13140
tgtgtgactt tatatgctca gcatttccca aactttgtta ttccataaga catgtaaaac 13200
tggttagaag atttgtaact atttggtata taacgactat aggatttaaa tataaacaat 13260
acttacattc tgaaaaataa cataaactat tatgttgttt atacaatcag tattaacttc 13320
taatttcata gtaaacttac tgcaagataa tcttgagtac agatcacaga tctctagtcc 13380
atagataaaa gtggccaatg aggcagattt aattcatatt gaaaaacttt ctgacaagct 13440
gtgctggaca ttatagagta gtcttaagaa ggtagataat cctgtcattg aacaagaggg 13500
agcaccagtt aatctgtgag aaaatgaagc aggattctca caagaagaga agttgggtag 13560
gtaacttatg aattttcttc catttgtttt ttattatttg atatgttgtc ttctattaat 13620
atgggtgatc agtagttgac attattgttg ttattactat tattataact gacacaatgg 13680
tcttgctctg ttccccaggc tggagtgcag tggcaccatg ataattcact gcagccttga 13740
acccctggct caagcagttc tccttcctca gccttccaag tagttagggc taaaggcatg 13800
tgccacaatg cctgactaaa ttatttttat tttcttagag atgggggggc agtctcacta 13860
tgttgttcag gctggcctca agcaatcctc ctgcctcagc ctcccaaagt gctaggatta 13920
taggtgtgag ccactgatcc tggccccttt tattttattt atttattttt tgagatagag 13980
tttcactgtt gttactcagg ctggagtgca gaggcatgat ctcagctcac tgccacctct 14040
gcctcctggg ttcaagtgat tatcctgcct cagcctcctg agtagctggg attacaggtg 14100
cccaccacca tgcccggcta atttttttata tttttagtag acggggtttc accatgtttg 14160
ccaggctggt ctccaactcc tgaccttagg tgatctacct gcctcagcct cccaaagtgc 14220
tgggagtaca gatgtgagcc gctgcacccg gccccttta attttttaa aggctttctt 14280
tgagctcatt tgtaggctta tctacctact gagtaaagta gttgggtgtc ctaattttat 14340
taataggatt aatttttatt ataaatcatt agagatgttt tgatacttta gttaaaactg 14400
ctttttagta aatttgtttt tctttgcaga tatgagggaa ggcaccattg gagatatggc 14460
tatcctgggt ataacagaaa gttttcaagt gaagcgacag gttcttctga gtgcagctga 14520
agcagcagag gtgattctgc gtgtggacaa catcatcaaa gcggcaccca ggtaccctaa 14580
cacttttctc agaaaaaatt actaacagca aaacaaaata gggagctgta tttattttat 14640
aattagagtt aatgaaaagc agagacagtt ttgcctggat aaaagtatgt aagttattta 14700
aaatatcaca actcttaaca cttaagccag aaaaacttaa ggggaaagag ggatgggcag 14760
ctgaggtagc tcttaggatt gaaaaggcac agaaagagcc atgcttggaa aggtcaagta 14820
ctgaggacag tagatgctgt gatgctttct attgtcttta aacagaatga tagcaaaagg 14880
aaactgagtt ctgtaactaa agtgttctag ggcaaggtca tatagccaca cctactccca 14940
gaaatcttca caagaagtca gtgccctcac ccacagttga aataacgctt aaaaaatgta 15000
taataccttg tttggtctga tactgtttta gagatcaggt atcttttatt agcaaattct 15060
gagtaatttg caataaagaa actgaatttt aactcagcct tccagaccta ccagaccatg 15120
ggcttctttt tcatattcct tattaatctc cagaagactt ttttttcag atcagtgccc 15180
tgtgacagct gcttcataac tcttgacaat ggttagcatc ctagtccccc cataagctac 15240
caagggtgaa aagtttatct ctctatatga tccctgtata atgctgtact ctttgatctg 15300
ttcttaagct tcttcagctt ctcgtaactg ttgtgtttgc ctctaaaagc agtgtttctc 15360
aagctttaga tccttgaaca agcattaagt acaaatttac tagtaccctt atcccatctt 15420
tccaaaagat tgttctatgc ccccttattg tatggtcatc aaagaataaa agatgagaat 15480
agaaggtgct tcttgttggt gggggtgtct gcagagtccc aaggcagaac agtcctgatg 15540
tggtgcaggg catcacacag aggagggggc tgagtggcta gctcaggtct gtcttcctcc 15600
tcacctaaag ccagcagtcc catcctatat aacccattag tccatgacat aacttggtca 15660
cctcttaaaa gcccaacttc caatactgcc acattgggga ttcagtttca atgtgagtgt 15720
tataggggac acacatgcaa accattgcag agttataaca gttttaatac aggattctag 15780
ttgtgtttgt atttagtata atactttgga taaaatcatg ctcttcattt ttcactattg 15840
actttttct tactctcata ggaaacgtgt ccctgatcac caccctgtt aagcattccc 15900
acgtgctgtc gatctttgga ccagtttcta gcaaagttgt gtttgaaaga tactctatta 15960
aagaagactg tggaatctgt ttatcggtgc ccattatatc cttaagtttg gatatttagc 16020
tgaccttcgc tttaacatag gtctaattta tttgccgtgt cattttccat acaaatcagt 16080
tgatttaaaa aagttcattt ctcatactgt gcattaaaat aaaaatttga acaattactt 16140

Docket No. PS804

ggttct 16146

<210> 2068
<211> 100
<212> DNA
<213> Homo sapiens

<400> 2068
ggtggatcac ttgaggtcag gagttcaaga ccagcctggg caacatggtg aaaccccatc 60
tctactaaaa atacaaaaat tagctgggca tagtggtggg 100

<210> 2069
<211> 1744
<212> DNA
<213> Homo sapiens

<400> 2069
attcaaggct cactccagtc cacgtttcta gcttccgtct tccctcccct gcacatacta 60
ctgcatgtac ctccacagtc ttccctttg ctttgctggc atctcatgtc tttgttgcct 120
atccaagctc cctgttgaaa ttctatccat acttataatt aacatgtccc ttgattcata 180
cagactttat cagcctgccc ttagtttctg tcagacagaa ttaagtcctc tgttcccata 240
taaagcagat ctttatagct gttttagtag atattgttta tatatctctc tctttcacag 300
ccccttgtaa cccatctcat tcccatattc tctttcaacc cccatctctg attacagata 360
gaaagggtga taagtttgtg ggctgtgtct ctttaatctt gtacctccac agcatctagg 420
acagtgtctt gcctaaagca aggatggaat taacatttgt taatagacgc ttatctgtca 480
gtcttactat cctcaccctg cttcataagg aaattatatt ttatttatat tttatttcaa 540
atcagtaata ctgcctgtca catcactaaa acctcaaaaa acagaaatgt ttgaaataag 600
aattttcagg tttgccttgt gataactgta tactaactag ttgaaagtat ggattcagta 660
tcttcaaagt gttctgattt gctaggactc actgttttct tgtgtttaat cttcagtttg 720
tgaggtcatt taatttgtag catttgcaaa tgttatactg aaaaactctg agaatgaaat 780
aagtcactat actacgtatt tttataaata aggaagtgca caattatgtg acttcacatt 840
tcttgcttgc ttgctttttt tggggtgggg acagagtgtt gctctgtcac ccaggctcga 900
gtgtggggtg gtgtgatctc tgctcactgc aacctcctat tcccaggctc cagtgatcct 960
tctgcctcag ctgggactac aggtatgcac caccatactg gctaagtttt atatttttg 1020
ttgagatgaa gtttcactgt gttgtccagg ctggtcttga actcctgggc ttaagtgatc 1080
cacctacttc agccttccaa agtgctggga ttacaggcag gagccactgt gtccagctta 1140
catttttgt ataatcaaca ttagccagag taaccacact ttagatctgt tggtcttcag 1200
gaaaagcaat atgtgtctgg atgtggtggc tcacacctgt aatcccaaca ctttgggagg 1260
ccgaggtcgg aggatcacct gaggtcagga gtttgaaacc agcctggcca acatggtgga 1320
actccatctc tactaaaaaa aaaatacaaa aattagccgg atgtggtggt gcacacctgt 1380
aatcccagct acttgggagg ctgagacagg aaaatcactt aaaacccagg aggcggaggt 1440
tacagttagc tgagattgcg ccactgcagt ccagcctggg tgacagagtg agactctgtc 1500
tcaaaaaaaa agcgaagtta catgcaataa aatcacacag aaaaattatt tttaataaaa 1560
aattaaaaca attgacagat atcagttata tgatttattg ttccaactgt tatatgtgta 1620
tttctgagtg ccctttggct tcttgcccgg tggtacttga agtcatagga taaacatggc 1680
atattttcct taagtgtcaa tattactcaa caaatatagg ttaaaaaagc attctatctg 1740
atgt 1744

<210> 2070
<211> 94
<212> DNA
<213> Homo sapiens

<400> 2070
acgtgcaggt ttgttacgta tatatacatg tgccatgttg gtgtgctgca cccattaact 60
cgtcatttaa cattaggtat atctcctaat ccta 94

<210> 2071
<211> 199
<212> DNA
<213> Homo sapiens

<400> 2071
tgcaacctct gcctcccgtg ttcaggtgat tctcctgcct cagcctcctg agtagctggg 60
attacaggca tccaccacca cgttcagcaa atttttgtat ttttagtaga gatggggttt 120
catcatgttg gccaggctgg tctcgaactc ctgacttcag gtaatctgtt ctccttggcc 180
tcccaaagtg ctgggatta 199

<210> 2072
<211> 11597
<212> DNA
<213> Homo sapiens

<400> 2072
cggtcacgta actagtgagt tgtgcagcta gggttagaat aaacagattt atttttttt 60
tttcttagaa acagcaatta acaatgtgac tcctaatcaa aagaaaagag atgtccttgg 120
ggcttaaagt actatggtgg gagtcttgga ctgagtaggt ttgaaaatac aattttatga 180
tcgtggagta ctaggattta gtcattttga tgcagagcat ttcctgatca actgctgttg 240
tggagtgtac tgtccaatag aattctctac aattaaggaa atgttctgta tctcaagaga 300
ttgttcttaa tggtggccag tagtcatgtg accgttgagc atttgaaatg tggctagtgc 360
tactgaagaa tggaattgta aattgctttt aatctaaatt ttgcctgtga tattattggc 420
tgtgggtttg ccaaaatttg tttttttaaa gaggaaaaga taacggactg ttggctgctt 480
tattggacag cacagctagc atatagatgc agataggtag tataacttgt ttgtagttta 540
atataaatgt tgtattttgt aattaggcca aatttgagtt tcatcatggt gactatgaaa 600
aacagtttct gcatgtactg agccgcaagg acaagactgg aatcgttgtc aacaatccta 660
accagtcagt gtttctcttc attgacagac agcacttgca ggtaagcagc ttttttgaaa 720
accacttaca ggctcattca aaaacttatt ggttagtaaa cgttttatat acaagttact 780
taattgttgt gtcccccaaa cactgcatta tttttgaagt tatttaaaaa gcaaaaaata 840
ggctgggcat ggtggctcat gcctgtaatc ccagcacttt ggaaagccga ggcgggcata 900
ttgcttgagc tcaggaattc cagaccagcc tgggcaacat gacgaaaccc catctctaca 960
gaaaatataa aaactagcca ggcatggtgg cgtgtgcctg tagtcccagc tactggggag 1020
gctgaagggg gaggattgct tgagcttagg aggctacagt gagatcttgt cactgcactc 1080
cagcttgaat gacagaacga gaccctgtct caaaaaataa aatgaatttt taaaaaagta 1140
tttcccaggc ctcactgtag aacaatggtt cccaaatttt gctgcatgtt acagcaacct 1200
ggcaagcctt ttttttttt ttaaacggga aaaaacccac ctccttcgaa gcttttaaaa 1260
gtcatgattc tagtgaacag tagtgagaac tattgcccta aagcgtgtct accagatgtg 1320
tgggcaatgg atgaacatca cttgagaact tgttaaaaat atagactctc aggctctact 1380
aatcagagtc tgcactttaa acagaaccct caggtgattt gaaacacact ttgtttccag 1440
aagcactgac ctggacgttt ttttttttct tgagagggag tctctgtcgc ccaggctgga 1500
gtgccgtggc gcaatctcag ttcgctgcaa gctccacctt ccgggttcac gccattctcc 1560
tgcctcagcc tcccgagtag ctgggactac aggtgcccgc caccacgccc agctaatttt 1620
ttttttttt tgtattttag tagagacagg gtttcaccat gttagccagg atggtctcaa 1680
tctcctgacc tcatgatctg cctgccttgg cctaccaaag tgctgggatt acaggcgtga 1740
gccaccgcaa ccggctgact ttttaaatct aaaaggatga gggacatata tttaaaagat 1800
ccacatttat ttcaaataag cacttccatt tgggcacagt gtctcacact tgtaatccta 1860
gcattttggg aagccgatgg gggaggattg cttgagtcca agaccagcct gggcaacaga 1920
gtgagacgac atctctacaa aaaatcaaag aaattagccg gacattgtgg cgtgttcctg 1980
tggtcctagc tactctggag gctgaggcag gggagaatca cttgagccca ggagtttaga 2040
gttgcagtga gccatggcac caacacactc ctgcctgagt aatgcagcga gaccccatct 2100
caaaaaaaaa aaaaacaccg ccaacaacaa ataaccactt cccagttaag cagcaatcca 2160
agtattgcaa tttagttttt agatgcagcc acttgctggc tgtatgatct tggacaggta 2220
actgctgtga gcatgttgct tctgtgaaat tgaacaaatg ataatcctaa ggttgttaaa 2280
tttaacgtaa ggttgttaca tttaaaatta actaatacaa gtaaagtata ttacatatgt 2340
ataggtttat ttacatttgt aggctacttc agacatcttc aaagtcagag tccttatttt 2400
gccttttaga ggtgctagat agtgaagaaa agatgaactt tgtaattaag ttggatgttc 2460
aaatggtaac tacttttaa aaataagggt tttgatttaa ctggtaatac tttggctttt 2520
ttctagtccc ttaccccagg atatgcttaa atcttttatt tatttttga gacaaggtct 2580

Docket No. 5050-2-PCT

0950080 - 051204

caactctgtc accacgctgg agtacactgg catatggatc atggctcacc gcagccttga 2640
cctcctgggc gcaggttatc cacctcagct tcccgagtgg ctggactaca ggcgtgtgcc 2700
accacatcca gctaattttt atatttttg tagagatggg ttttcgtcat gttgcccaga 2760
atggtcttga actcttgggc tcaagcaatc ctcctgactc agcctcccaa agtgctggga 2820
ttacaggtct gagccaccac acccagcctt aaatttttac ctattccttc atcctctcac 2880
tagcttctat tcttaccaca tctgctttat cttcctctat ataaaaatga cttcaaactt 2940
ctcaaaatct gtccccatga aatgccttta gctttaattt cttctagcaa gtagtctctg 3000
gtttacttcc ctaacttttt atcttctaat tctgcataaa tttttccttt atcttatatg 3060
gcaagatttt gtctgtctag aatatggata gggactacaa tttgtccctt actctgtatg 3120
ttaagatgtt taataaattg tgggaaatgg acttcatgtg acagttacgc taaagtctta 3180
tttttaaaaa atattaaaat gttttccccc tccagactcc aaaaaacaaa gctacaatct 3240
tcaagttatg cagcatctgc ctctacctgc cacaggaaca gctcacccac tgggcagttg 3300
gcaccataga ggatcacctc cgtccttata tgccagagta gagtactgac cagcaaaatg 3360
gagaagatca gagaatgcag cagcagtttt ttttcttgtt ttcttaccac tttattcttt 3420
cagagtttaa agaaaatgga ctcatgcaca gaacactatg cattttgaaa cttgttcatc 3480
ctggattttt ttaaatcatt tttatctcag aacttaaaca aaaattagat gtcgtgcacg 3540
gactgtgtga aagaagatgc tttgcatatt tgctgcactg catcagtatc ttactaaaaa 3600
tgtgaaatga aaggactatt gtacactgaa atgcttaaat gtatctgaaa gcacaaggtg 3660
atactcattt ttatggtctt cccatttgtg ctggtttttg cctctttgac atctgtcatc 3720
agtatttaga gggtgagaag tgaatgtaac aggtataaat aacatttta aaaacaataa 3780
ctttgctata atcacagttg ttccagagca ctgtcagata cattctaatg accagaactg 3840
gtttaaaaaa agaaaatata accatgggaa agaaatctta aatgaaaaac gcatctcatt 3900
gtaggcattt ttgcctcata ttttactggg ccatgtttgt ttcctggtac tcatgtattt 3960
ttttttcca gatctctttc cccaagttgc tattgtaaga gtattctgct gcgtgtggat 4020
gcagttatac acattaaagc agatctggag tctgaagtag ctataaagca gctataaaac 4080
agaaatacat gcatagctgc agaaaccatg ataggtagag gacttttctt ttggttttgt 4140
tttgttttgt tttgttttgt ttttggtttt acagagaaga gatttttatt acaaagaaaa 4200
aaattccagt gaattgtgca gaaatgctgg tttttacacc atcctaaaga aaaactttac 4260
aagggtgttt tggagtagaa aaaaggttat aaagttggaa tcttaaattg taaaattaac 4320
cattgagtgt caaagttcta aaagcagaac tcattttgtg caatgaacat aaggaaagac 4380
tactgtatag gttttttttt ttttctcctt ttaaatgaag aaaagctttg cttaagggtt 4440
gcatactttt attggagtaa atctgaatga tcctactcct ttggagtaaa actagtgctt 4500
accagtttcc aattgtattt agcttctggt tggaatttga aaaaaaaaga aaaaaagaaa 4560
aagaaaacct aaataaaata ggtgaaagtt ccctgactat tcaggtgaat acacaaagtt 4620
tgaagtgtta acttttttctt tccatttcac tgatgttact ggtcacctta gagaattatt 4680
tcatagtctg tggctaaata gtaaattcag aagaaaaata cctggcaatt gagtgtgtaa 4740
cttcaacaag aacaggaatc aagaacatac tgtcagcttt caacagttag caacctggcc 4800
ttatgccttg cttcatggga aagggccatt cttaaatttc aaaatgcttt catgtgtcct 4860
cttatttaaa aattagaatc tatttgaaat aacattttga atgtttatta taaccaggta 4920
ctcttctaag ctcttgtctt aacctctcaa cctttggtgg aaatagatgc agaggttaag 4980
taacttgctc aagctcagat cataagtagt ggaggattta aaaccaggct ggctggctct 5040
taaggcctat gctcttaatt taccatgttg aattaattta ccatattgaa ttacacttat 5100
gttcaccaag ttaggcattt tggcagccat tgtttacgtt tttattttgg aataatttag 5160
aaaagttacc agagtaatat gaaagctgtt gtgtaatctt taccctcatt tttattattt 5220
tgccacattt ttttcatttt ctctgtacac ttatacctgt gagctatttg agtttgttgc 5280
acactttgtg cttccttacc ccttccttag tacttcggca tatgttccaa gtacaagaat 5340
atttcatata actagagtaa aattaccaaa ctcagggaat gttgatactc tttatcatcc 5400
atattcgttt tgttgtccca gtatccttgg tagcttgttt tagatccccc cctctagagt 5460
acaggatcat tgaatttagt tgttctcagt tgtctttaat gtggaacagt tccttagcct 5520
ttatgtgttc catgacctct atgtttttg gagtacaggg caatttttct tgtaaattgt 5580
tactcatttt gcatttgaat tgtttattca tgcttaacgc ccttctcaag tatactctcc 5640
atctgctctt cattgatgtt acttttgagc gcctggtcaa ggtgtcctgg ttttgcccta 5700
tgtgtggtac ttactactag caatctctgg gaagcaatgt gcaaataccc tgttccttta 5760
tcaggagctc ccttggcgat tctttccaga ctaaaaccca aaccagtctt taactatgat 5820
ggttacaaaa tagtgatttt ccaaatctaa tgctttgtcc atttacagca tttgttgtaa 5880
gagagtgttc tatctctgcc atttattatc tacctaaaca ctatggcctc atatttttc 5940
cctccaaatc ataatttgca tgcctttatt attttgagca tctcctttca tgcataagat 6000
actgtaacct ttctgtccca gcctcaagcc ctggagtcag ctgtttctcc aaggagccca 6060
gcttcctttt agtgggaaat actagaagta aacatctggg actcctgtat gctcactgct 6120
gctattgcta ctgtggagtc ttctgccctt tcacagtgga cagatcagca ggcgatctaa 6180
tgtagggaaa ggatttgtct ttaactgtta acttgactta aatttactta aagctgcatc 6240

Replacement Sheet

```
cttttttagtc tttagtcatg aaatgttcat taagattccc tgacagaaat caagtaagag   6300
tcagctgggt gcagtggttc acacctgtaa gtccagtact tgggggggcca aggcaggagg   6360
attgcttgag cctaggagtt tgagacgagg ctgggcaaca gtgagacctt gtttctacaa   6420
aaataaaatt aggcgtggtg gcacacgcct gtagttccag ctactcagga gactgaggtg   6480
gaagaatgtc ttgagcctgg gattttgagg ctatgggaag ctgtgattgt atcactccag   6540
cctgagtgac agaagctgtc tcagagtgcc acagtcaact gaacttggag acttctgaga   6600
agtgaacttg gtcttttcaa tactatagac ttggaggttt gagatctgca tggttttatt   6660
ctcggtacaa gaaaaggggc tagtagcatg ctttttttct tccccctcta ttggaccatt   6720
tcctgtaaca ctaacatgct tagcctcaaa cttttcttga ggtctttttt aggcatatgg   6780
ctcaatctat tttatttttc aatatgggct gtagttcata tattttgaag tttcataatc   6840
ttaaaaaaag gaaatgcaag tgtagcttgg cattttagat ctgggaagga cctaagattc   6900
gctaaggatt ggccattgct gtggtctcca tgtgtttccc ctaaatttgt atgttaaaat   6960
cccaaccccc aaggtgatat tagcaggtgg gggtctttgg gaagttatta gatcacgagg   7020
gcagaaccct caagattgga gtaagtgccc ttacaaaaga gaacccaggc tgggcacatt   7080
ggctcacacc tgtaatccca gcactttggg gggccaaggc aggcggatca cctgaggtca   7140
cgagttcgag accagcctgg ccaacatggt gaaccctgtt tctacaaaaa actacaaaaa   7200
ttagctaggt gtgatggcac atgcctatag tcccagctac ttgggaggct gaggcaggag   7260
aatcacttga acccaggggg cagagattgc agtgagccga gatcgtgctg ctgtactcca   7320
gcctgggcaa cagagcgaga ctccatttca aaaacgagaa cccagagggc tcacttgccc   7380
cttccaccac acagtgagaa ggcaccatct atgagccagg aagcgggccc tcacctaaca   7440
ggatctgctg ggccttgacc caggactttc cagcttctag aaccatgaaa aatttctgtt   7500
gttcctagca gcccaaacag aattagaacc attaatttct atttctcctt tagcttaaca   7560
ctggacttta gttttaatct taactgagag tggtcctgct agtttctttg ctttacctgt   7620
ttttaaaaca ctttgagcta agaatttttc acccaattat cacacatgat tagaaaacaa   7680
gatgcttaaa gtgaaaaaag acacccccac ctttacccta cttgatatcc aggtcctttt   7740
cctccaagaa tatttctagc tgcttctggt tttgctagtt tatttcaaaa attacaattg   7800
tttgagtcaa atctatactt gatattcatt gttgggtttc tttaggtcat tctgctgttc   7860
tctcagtttc ccaggtgttt tgtgtgtctt ccttgtgcta ttaattttcc tgtggccttg   7920
ttggtcagat ccacagaggt aaatgcaagt gtttttcctt gcttcagaac atgtgctgta   7980
atcactatat cttctcctaa ttttgcaggt gacatgtacc ttgaaagaaa atgaatatag   8040
ttaacagcag ataatttttc aaagggaaag ttgtgtgcat ctcacaacag tgttcctatg   8100
taacttattt tactcctaaa aatagtttta acggtagtat tggtaagctt tctgtactat   8160
caaatgtgaa tggctggtcc taaccaggtt ctattttacc cattccttac ccacacaagt   8220
ttcttttccc aaatatgtga gaagaggttt tcttgcctcc ccttttttcc ctttacattt   8280
cccacttcac atttatttgg ggctggtgaa agatttcctc cagctttcat ttaatctcct   8340
taacttctta gatgaaatat cacttggtgt ctgtatattg tcctatccat atttacaatt   8400
tatttgactc taaaatgaca atataacaac tataaggaat tgatatgatg tccttacaat   8460
cttgatgatg gactgtctat atttttaaga gatgtacatc ctagtcactt gtaatcataa   8520
gttgtcttta actcagctgg ctccagctaa ttaaaaaaaa aattggggag atgaggattg   8580
tttaaaacaa atgttaatgt tttaaaggga aataatttcc ttacagttta tttttatgtt   8640
tctgcttttt agaaagaaac ctttaaaaag gatatgtatt tttgccatat tcaaaataag   8700
acttcagtat ttatggctag gaggtataag aaaggtggat ctggccgggc acgatggctc   8760
aagcctgtaa tcccagcact ttgggaggcc gaggtgggca gatcacctga gggcaggagt   8820
tcgagaccag cccggccaac gtggtgaaac cccgtctcaa ctaaaaatac agaagttagc   8880
taggcatggt ggtgggcacc tgtaatctca gctacttttg aggctgaggc agaagaatgg   8940
caggaaccca ggaggcagag gttgcagtga gccgagatcg cgccactgga ctccagcctg   9000
ggcaacagag caagattcca tctcacaaaa aaaaaaaaaa aaaaaaaaaa aaggtggatc   9060
ttattgctgg aaagaacagg cttgtcttta attcacatac ctcaatgtaa agaaatgaaa   9120
aatagtatgt ttagtagtag tttggccagt ttttattatt tccctaaatt ttgtcttaga   9180
aatcaagaat tttggctaac agccattaac ttaaactgag ggaagataag gaacccttg    9240
tgctacagat gagtaaacat taagtccggg gaatttggag attgacattt tgtcagtaat   9300
actctaaaat ttccccttt gttgttttgg aacctcgctt gtttttaacc taagtcacag    9360
tctaacaggc atcctcagtc tgtataatat aggacttgat gtgcaggggt ggagtaaatt   9420
tggtaccatg tcaagtaaat caaagagtga atcatgaagt gttaactgac tgaaacatta   9480
ttcatttact tttgaaatat ctctaacttt tgaaagacca tgtcctagtt tttgttgaag   9540
tgaatcagtt tttgaagcgt aggcagctct tgatggccaa tgcttttggc aacacatatt   9600
tgaaaggcca aaactatgtt tgacttactg aaaattcctt agggttctaa aggcaaaagt   9660
accttagtag atcatgaaat gcagtgctag gtttgaagat ctctctgctc ttaatagaga   9720
cttttaggga aaatcaagtc atctactgat ctcacctctt accacatgaa ataaggactg   9780
ctgaatatgc acaccagtaa cataagcaga gcctttcttt tctgtacatc ttaatttcaa   9840
aaagagcatt tggctgcatc ttgtaatttg cttattgtac cctcaattta agttattccc   9900
```

atgaagaggg actgaatgtt tcttaagtaa acttgataaa atatttagat tccttaaaag 9960
cctacattgg ctgggcgcgg tggctcacgc ctgtaatccc agcactttgg gaggccaagg 10020
cgggcagatc acaaggtgag gagatcgaga ccagcctggc taacacggtg aaaccccatc 10080
tctactaaaa atacaaacaa attagtcggg catggtggca ggcgcctgta gtcccagcta 10140
ctcgggaggc tgaggcagga gaatggtgtg aacccgggag gcggagcttg cagtgagccg 10200
agactgcacc actgcactcc agcctgggcc acaaagcgag actccgtctc aaaaaaaaaa 10260
aaaaaaaaag cctacattat ttccattacc ctcatatcta ctcacaatgg ctctctcaac 10320
ctgacctctc agttagttac atttttgttg cttaggtgga aaaagcagtt gtcttgaaac 10380
taaatccctg tgcccagctc tttctttatt gaatggggct gcagtagtac cagtttatgt 10440
tggaattgag tttcttacat tttggaagtt tgaccctgag gggcactgtt ccctgatcat 10500
gtagtttaac tcacagaaca tgtctgtgta gtcacaggga gagatccagg attgctgccc 10560
attcttaaaa ctcaacactt tgggaggctg aggtgggtgg acactggagg tcaggagttc 10620
aagaccagcc tggccaacat ggtgaaaccc cgtctttact aaaaacacaa aaattagccc 10680
agcatggtgg cgcacacctg taatcccagc tactagggag gctgaggcag gagaattact 10740
tgagccccag aggcggaggc tgaagtgagc cagattgtgc cgctgcactc cagcctgggt 10800
gatggggaga ctccgtgtcc aaaaaaaaaa aaaaacccca gcaatggtgt tcagtttgtt 10860
agagtaagat tataatgtgt atatgaactc taactttact ttgaattgta tgtactcaat 10920
acaatcctca tagtgttata agtggtattt ttaaaattaa ataatattta ttttttgtag 10980
agatgggggt cttgaactcc aggcttcaag caatcctctt gcctcggcct cccaaagtgc 11040
tgggattata ggcgtgagcc actgcgtctg gccctgaatg gcacttttaa ggactgtatg 11100
aaacagttat gagccatcag tttgtgattt ttccccctgc atcagtatac acattaaaag 11160
ctgaatgttg ctcttttgaa tgtttgggat cattcccttt ttactattga tacacactgt 11220
acttgcaaat taactgctct agttctagat tttaaggctg gaatatttta ggacaaaatc 11280
tataggtgca gttaaggaga taagcagcta attgaatctc atgcgttact aataatataa 11340
atgtgtttag tctcagttgt ttagacagtt atcacacaga agggatttgg aatacagttt 11400
ggatacatac gttatgttca tatcgacact gactccgggt gctccccttt ccgtgcatag 11460
cagagccatt gttgatatgt tatctactaa cgtggctgtc aaaccgccgt ggagagtgcc 11520
tattgcattg gtatgctctt cttctacttt catttcacaa atcactttcc caggagcagc 11580
agagacaaga gtaatct 11597

<210> 2073
<211> 22073
<212> DNA
<213> Homo sapiens

<400> 2073
accctctccc gcccgctcca cccgggcggg aattgtttcc tcgatcaaat gagtgaaaac 60
ctgagtgatc ctgtgtctcc cgtggtgcga gtgagtcgct gccgctgaag gctaaggggt 120
gggggtggga cttgcggggg tggaaggcta ggtggtctcc gggctccgcc tgggatttgg 180
gagaagaacc cgcctccttt gcctcggcaa tgctcacaag aagataaatc gcactcccca 240
ccattttgaa cgggggcaga tccacaggga agtctccctt ggggaatgta ggactagttg 300
caggctgggg gtgttgggaa cccgggcatt aatcaggtct aaccacagag ccggaataat 360
taataccgta ttatataccc cttttccttc tgccgtcatg attctccttg gcagcagcgt 420
tagcagccgc ctgagggtga aaatgtgggt gatggggaag ttggtaatga ctccgctgtt 480
ttttctcatg gctcctttgg gccacagctg cccgcccccg gtatacactg tagttgattg 540
cagggaaacc ctgtacctct ccctttcctt ctctaccgat tttgcacttt tctctatgct 600
caccaccaag tgtaatcaat aacaagcact gacaatacat agcaatagtg aaatctgaaa 660
taactaagaa ttaggtacta cagccatgga gctggctggg taaaatctaa ttggatattt 720
cagtttcatt cacctaccct gttttggtgt ttggttttgg ttttggtttt ggtgagtttt 780
ttttttttt ttttttggaa agcaaggatc acacttcccc ctccctgttc cttaatccct 840
tttctaaaaa ggggggaaaa tccggatgga ttttagggat tggtctggtg tcagctgtgt 900
tttattgcac acctaaatcc tgattatagg cttttcattt ctccgcaaag cctttatttt 960
ggcagttaag ccaaatgtgt tttccagaaa gttagttatt ttctcctctt tctttccttt 1020
ctttcctccc tttttcccgt ctgaccccaa acgttattgt ccaaacatga ctggacagca 1080
gcttttgttt cttgaccctg taatatgaca gtctgctaat attgacagaa ggtgcagttt 1140
ttgggttata gtcgtgattt tcgctaatca atcatattag caggaaaaaa aatgacttgt 1200
ttctgttgta cttgagtctt aagaaaaagt gcccatagtt tagtgacaat ttccaaaggc 1260
tttagtacca cctgtatttc aaaatggggg acccaaactc ccggaagaaa caagctctga 1320
acagactacg tgctcagctt agaaagaaaa aagaatctct agctgaccag tttgacttca 1380
agatgtatat tgcctttgta ttcaaggaga aggtaattta aagttcttaa tggtgaatta 1440

gcacaagtaa tttttgtaag tgtatattat ttgttactct taaattatta tgaatattag 1500
gttaaagagt ggttgaaaaa aagtctgctt tgtatgctct gttttttcac ccttaggggt 1560
gattctgtga attgagcagt tgcagcatgc gaaaagaccc ttgagcgttc tttggtttgg 1620
aaataaattt gagtctgaag cttagtagta gtatacactg agttgacatg gggtgggcaa 1680
gattacaaaa ttttatatgg agttaacatg ggaaaccttа tgatggaatt taaagattat 1740
ctaatgtaga gtataaataa gatggttgaa agtgtgaaat tgtaatcaga ctgtttatat 1800
gctaaagttt atcctgtttc ttaaactgcg taatgtaggt aacctttтct cttacattta 1860
atgaagtaga atacaccttt taggagcaat taaatactga aatggttaat ttgtgtttag 1920
aagtgtgatt ttctttttta cttagagttc attttgcctt gtatagaagt acagttttta 1980
aaaactcaaa atgacctaga ggaagtttca tttttagggg cggtggaggt cttaatcaga 2040
attagttccg cagttaaata gcaaacagta agttgtgagt agtcaaggat gggatgataa 2100
gagcagtatt ttttgcaact taaaatgaac attttcttaa attatcagca aggcttattt 2160
gaccaaagat gaggttatga atgtaaggaa gtgctacttg gattttggtg cttaaattgt 2220
tagctaattt cagatcagaa atacaatctt agtgtggtat ctattaagta tctggaagtt 2280
ttccaggttt ccccctactg tttaactctt attatttttg ttgctgagac aggcctcact 2340
gtattgccca ggctagtctt gaactcctgg gctaaagtga tcctcctgtc atggcatttt 2400
aaagtgctgg gattacaggc aggagctgcc acgcacagcc ccaactctta actcctaaaa 2460
ggttatttgt atttaagaac attcttagct gctgaagtat agcattgtga agtgattttt 2520
aagtaatttt tgaagtgact gtcccaagat tgggtggtat caaggactta catctccact 2580
tttgttttgt tgacaagctg actcaaaatt gatgagattg gattttagtt gaagatgata 2640
cagtgtatgc tctttaaata aatccaagat aataagtagt gagaccatat ctttgtattt 2700
aatctatata ttgccccaaa ttgcaccatc ttaattcttt aacaccaacg ataatctggt 2760
tttattctgt gaatggacag tgtccatgca gttgccctga ataattcatg atatatactt 2820
aatagtacag aattttaaaa agtagtttag tgatgcgtac ttggtcttga gtagtattaa 2880
aagagaactt ggtgtgcttc tttttagtct ttcaaatatt gatggttttg gctgggtgca 2940
gtggctcacg gctgtaatcc cagcactttg ggaggctgag gcaggcggat cacttgaggt 3000
caggagttca aggccagcct ggccaaatgg tgaaaccctg tctctactga aaatacaaaa 3060
attagccagg tgtggtggcg caggcctgta atcccagcta ctcgagaggc tgaggcagga 3120
gatcccctcg aacccaggag gcagaggttg caagtgagcc aagatggtgc cactgccctc 3180
tagcctgggc aacacagtga gactccatct caaaaaaaaa aaagaaaaac cagaaatatt 3240
gatggttttg ataatgtaat attgagaaag taatggaaat tggcccatat aaggaataaa 3300
actattcatt tgtctgaata gcgttgtttt aaaactggtg agatttttaa ttttaagaag 3360
tattgtccaa aatagtgcta tggataccat tatgctataa aactcaagca ttaaacattc 3420
taatgacagt ttgtacatgt atggttggag ggggaggtag gggaagaaca gaaggaatta 3480
cctatctgaa aatgtgtttt cagtgtataa gttactgcag acagttaaga attttgtgga 3540
gttaatgtta catgacattg taatatgaac tgagtgttaa aaggctgtgc tccctgtggg 3600
ttaatacacc attttctttt cttctagaag aaaaagtcag cacttttga agtgtctgag 3660
gttataccag tcatgacaaa taattatgaa gaaaatatcc tgaaaggtgt gcgagattcc 3720
agctattcct tggaaagttc cctagagctt ttacagaagg atgtggtaca gctccatgct 3780
cctcgatatc agtctatgag aagggtaagt tctgccttaa gtcttgactt gataaagttt 3840
ctgtggatta accttgcatt tccccgcccc ccgaacccсc cttaaagtgg atagttatga 3900
tagtgaccag tctcttcagg taaatttgtc tttgtgccat gttgataact gggatcatga 3960
ctttaaagca ttgtgtttat aggattagaa aaacacgttt ttttacgcca gaccattctt 4020
atgtggatga agtatataaa gggatttctt taatctgtgt taggtgttga tgatctcgga 4080
ctttttttтt ttttttttтt tttgagacaa agtcttgctc tttcgctgag gctagagtgc 4140
agtggcatga tcttggctca ctgcaacctc tgccctcgcg cattcaaatg attctcctgc 4200
cttagcctcc cgagtagctg ggactacagt tgtgcgccac catgcctggc taatttttтg 4260
tgtttttagt agagatgggg ttttgccatg ttggctaggc tggtctggaa ctcctgacct 4320
caagtgatcc tcctgccttg gcctcccaaa gtgctgagat tacaggtgtg agccactgca 4380
ccctgccagt agccaactgt ttttaataat ttaagtgtta tgcagaaagt ttaaaaattt 4440
ttgaagtagg tttgtttttg aaaacttgac cttgagtaaa acatggacaa ctttgttgta 4500
ttaggctcat aatattgtgt attattattg tggataaatg tcttatgtct ccgtttattg 4560
tatttccttt tttgggggga atatgaatat aaggaagtgc ttccagcttt gtaaacttct 4620
gcaacatgtt aaaagttaat ctgggcatac ctgaaccaag agatccccac agttacttgg 4680
ggagaatgct ggagataacc agatactggt ctggaagaaa ttatggacct tcaaaaatta 4740
atatgctggc tacaataatg aagcagaagt caggaatgga gaaaagtagt tttctatcaa 4800
aataaaaata gcatttcagc tataatagga tagtgattca tattaggagt tctaagacat 4860
ctttttaaat agattgattt ttaaaggtgg aaataaaggt tcagggtctg acaatacaac 4920
agatatcaga gattttgttg gagttttcac catgcactga taagtctagg tcttggtgtt 4980
aggagcattg gactgagtgt atgtgactct ctgtaagata aaaattaaaa ttagagccag 5040
gcacagtgac ttagcctgta atcccagcac ttcgggaggc tgaggtgggt ggatcacctg 5100

aggtcaggag ttcgagacca gcctggctga cgtggtgaaa ccccgtctct attaaaaata 5160
caaaaaatat tagcggggca tggtggcaca cacttgtaat cccagccatt cgggaggcta 5220
agtcacgaga atcgcttgaa cctggtagac ggaatttgca gtaagcgaag attgcaccat 5280
tgcactccag tgtgggccac aaaagttagg actctgtctc caaaaataaa aaattacatc 5340
atgagctatt cagattataa actattatgt ttacttccta agatataaaa tgatatatgg 5400
tagatctttt gtacttataa aatgttttta taggggaacc ctataatttg tgacatggct 5460
tgatgtagct gtttctttaa aagtaaactt ttttttttt aatcatttta taggatgtaa 5520
ttggctgtac tcaggagatg gatttcattc tttggcctcg gaatgatatt gaaaaaatcg 5580
tctgtctcct gttttctagg tggaaagaat ctgatgagcc ttttaggcct gttcaggtat 5640
tttggtctaa agtgtgatga gtatttcaat atgtgaaaac tactagaata taatagggtc 5700
taacttgaga aattctttgg gaaaatggtt tctgatagtt ttatttcacg agtctcccct 5760
atttagaata ttgtgatgca agagaagaaa gcgtttggat tatagaatct cttgacagtg 5820
tggtggttcc acctgcccag tgtggctttg aaattatgac tagagaaaat cttttaaagt 5880
ggacatttac tgatttatag aggggcccac agatgagctt ctgagatctg taactcttga 5940
agccttcacc acacatcctt ctaaaaccgt atatttaact gctgcttccc aaaggaatgt 6000
gatctgaaat gggtgaagaa atcattttgt agaagttgat ctgtatataa aattatagaa 6060
gaaagaagta aatttagtag tcattcttaa ccttaaaatc ttgctgactt ttgactgttt 6120
gtcatggtat actagacatt gctcaagtga atccccccctc tagtgttaag ggcatttact 6180
catgttgaac ctagttttat ttacagtata tttgtatgca tagaagatgg aggtccacca 6240
aagtgttaat tatgcttagt tgtaggtcag gtatagctaa ctttcctttt ttaatatata 6300
tatttacatt tgtgtttcct ttataattta tggcatagat tgccacgatt ttcttaagta 6360
tacttttata atcagaaaaa tgatattaag gactcatttt aagtacacta aatcaaatat 6420
tagaaggctt ctttatttta agctaattgt gaggattatt tgtcatttaa aacttttgct 6480
tctacttatt accctgaagt atctttgtgg tgcttatgtt tttcacagac tgtataaatt 6540
gatatactct cccgccccat ggtaatgttg ctacacataa gctctaataa ttatcatttt 6600
taatgtttta agattaattc aactaagttt taaaaataat ccattggtta catacataag 6660
aaagtactgt atacagattc ccctgactta taatggttcg acttaagatt ttttcaactt 6720
taccatgatg tgaaagccat atgaattcat tgtgctcctc gatttatgat gggactacat 6780
ccaggtgaag tcattgtaaa ttggaattgt tgtaagttca aaagtcactt tttgatttaa 6840
aatacgtgta acttacactg ggtttatcag gatgtaacat cacaagtcgt ggagcatctg 6900
tatttcggtc atttaatgga tgatatctga ctgaagggag aaaatgaata taaaaggcat 6960
gaaaacagga atagaaaagg catgtttaaa gttctcagcg cagggctgat aactctagct 7020
gctctctgga ggtggtgtta ggattttgtt gtttttttagt taaggatttc ccactggaaa 7080
aatgtaggtc tgcttattac agtatgtttt caaatttcta ataccctgcc tttcccactg 7140
ggaccttatt tgaaatagtt gagttaactt tagtcttgtg tcaaatagta ctctttgaag 7200
tcatggctga tgtttattga gagttgactg tactagtttc agctttttttt ttttttttt 7260
tttgagacag agtctcactc tgttgccaga ttggagtgca gtagtgtgat cttggctcac 7320
tgcaacctcc tcctccttgc aacctctgcc tccgcctccc tggttcaaat gattctcctg 7380
ccttagcctc ccgagtagct gggtctacag ggacatgcca ccacgcccag ctaatttttg 7440
tatttttagt agagacgggt tttcaccatg ttggccggga tggtctcgat ctcttgacct 7500
cgtgattcac ccgcctcggc ctcccaaagt gctgggatta caggtatgag ccaccatgcc 7560
cgtccttttt ttgagacagg gtcttgctct gtcgcccaag ctggagtgtg gtggcgtgat 7620
cttggctcac tgcaacctct gcctcccagg tttgagccgt tcttgtgcct cagcctcttg 7680
agtagctggg attataggcg catgctatga cacccagcta atttttgtat ttttttttgta 7740
gagacggagt tttgctatgt tggccagggt ggtgtccttg acctcaagtg atctgcctgg 7800
cttggcctcc caaagtggtg ggattacggg tatgagccac cacacttggc cttagacttt 7860
ctcttacttt atatatattt aatctcagtc cttaaaataa ctgggtagat aggaagaaac 7920
tgagacagaa attaggtaaa taaggcccaa ggcagttaaa taggataaaa gcctggactg 7980
actgtgcttt taactcacta ccctgtactg tgaaaattta cctatattaa ttatagaatc 8040
ttaaaattct ggactgagtg taagcagtat gatgtaggta atgactttag aattcaactg 8100
cagtaagtag gttaatattg taagaactaa tttgcttttc tgaagtaatt taaaatgtgt 8160
gaatatccta tatgaggggc cttaaatata actcactcag ttctttctca aagaaaatga 8220
gaaaaggaat ggtaaatgtt aacttgcagg cctctttttt ttgtttttttg ttttttgact 8280
cttaaagcac tttacttatt tttaaaattt aattaatttt ttgtagagat ggggtctcac 8340
tttgttgccc aggctggtct tgaactccta ggttcaagtg atcctcttgc ctcagcctcc 8400
caaagtgctg agattacagg tgtgagtcac cgtgcctggc cttttgaagc actgtaaaac 8460
ctgaatatat gggtagtgag gatataatcg gaaccagaat aaggattgtt tttaaatact 8520
gagttcttca gtgtactgtg aagtgctggg aggtactact aaaatgtatc tcttcttttc 8580
tcttcattat taatgctact gccaaggtta gctcctcccc tgactgttag aatatttcgt 8640
tacttctgtg ggaattactt ctttcatgct gcttatgaga agttgtgtgt gtgtgtttgt 8700
gtgtgtgtgt gtgtaccatt tcttttcaga taagtggata ttcaatatga tagaattgaa 8760

09505082 : 081704

PCT/US2000/020950

```
atgctaaaga actataagga aggccttttt cagtctcact caaacctttt ttcagtgtgg   8820
ttaccggttc ttgcacccac cctggttgct taccatattg cagctttgtt acttgaatag   8880
tatttcagtt tttaacacat ttgtttttgt gttggttctg tttcctagta tggctgtttt   8940
ttttgttttg ttttgagatg gtgagatggg gtattactct gtcatccagg ctggagtgca   9000
gtggcatagt catggctcac tgcagccttg aactcccagg cccaagtgat cctcccacct   9060
caacctcatg agtagctggg accacaggtg tgcaccccat gcccaactaa ttatttttgt   9120
agagatagga tctcactgtg ttgcccgggc tggtctcaaa ctcctggcct ctagtgatcc   9180
tcccgctttg gactcccaaa gtgctgggat tataggtctg agccaccatg cccagtcagc   9240
gtttatcaga ttacttacca ttactacttt gtcctgggga aatcctctta atctttaaag   9300
gcgcaatcca aaatcataat gttcccgtgt tacttactgt tactttttt ttttctcct    9360
atagtggttt gatgataaga acccaatttg ggccgggcgc ggttgctcac gcctgtaatc   9420
ccaacacttt gggaggctaa gccagatgga tcacctgagg tcgggagttt gagaccatcc   9480
tgaccaacat aaagaagtcc tatctctact aaaaacacaa aattagctgg gcgtggtggt   9540
gcatgcctgt attccagcta cttgggaggc tgaggcagaa gaatcgcttg aacccaggag   9600
gcggaggttg cagtgagccg agatcgcgcc attgcactcc agcctgggca acaagagcga   9660
aattccgtct caaaaaaaaa aaaaaaattg gagttttaca gataaccaca tcttattctg   9720
ggaaaggatt tgaagcaagt tgggttttat atttggctgt acttgtcctc ttcagcagta   9780
taataagccc cttaaggctg aagtaacctt attcctattg tttagtagct aatagcatgc   9840
ttttgatatg cttatgatca tactaataat ttaatatttg aattgtatgg aagtacaatt   9900
cagtatcatt ttacatatgg tatattgtga tgctgtatca tattttatgt tacggtttat   9960
aagaaaagct cctaggtata aaatgctaca tagcaggaac ttggtttttc aatgttatta  10020
tttcctactg tttttgacgt aacggcaata aaatttgttt gaaccaaaat ggactaacaa  10080
ttatttgtac aactcagtat tgtctaaata tcatattgtt aaatctaggt ttcttgaatt  10140
ctccatcaag cctggtcatg tcatgtagca tttggtgtct caccatgccc aacagatatt  10200
ttgtgggagg atggagttga tcttcctcat gttaaaagat tgaagggagt gttctgactt  10260
aattgataac agtctttcat aacttcacaa atttttgaga atgacccaag gctaactgtg  10320
ggaaaaattc acataaaaac atagcctatc tatgaggagc aaaactatat ttcagttgtg  10380
ggctttacat ttcatttaac cctcttaact gtcctgtgaa atgggttaca gccttatttt  10440
atagatgagg aagctgaagt ttaagggatt tgcatacggt cacgtaacta gtgagttgtg  10500
cagctagggt tagaataaac agatttattt ttttttttc ttagaaacag caattaacaa  10560
tgtgactcct aatcaaaaga aaagagatgt ccttggggct taaagtacta tggtgggagt  10620
cttggactga gtaggtttga aaatacaatt ttatgatcgt ggagtactag gatttagtca  10680
ttttgatgca gagcatttcc tgatcaactg ctgttgtgga gtgtactgtc caatagaatt  10740
ctctacaatt aaggaaatgt tctgtatctc aagagattgt tcttaatggt ggccagtagt  10800
catgtgaccg ttgagcattt gaaatgtggc tagtgctact gaagaatgga attgtaaatt  10860
gcttttaatc taaattttgc ctgtgatatt attggctgtg ggtttgccaa aatttgtttt  10920
tttaaagagg aaaagataac ggactgttgg ctgctttatt ggacagcaca gctagcatat  10980
agatgcagat aggtagtata acttgtttgt agtttaatat aaatgttgta ttttgtaatt  11040
aggccaaatt tgagtttcat catggtgact atgaaaaaca gtttctgcat gtactgagcc  11100
gcaaggacaa gactggaatc gttgtcaaca atcctaacca gtcagtgttt ctcttcattg  11160
acagacagca cttgcaggta agcagctttt ttgaaaacca cttacaggct cattcaaaaa  11220
cttattggtt agtaaacgtt ttatatacaa gttacttaat tgttgtgtcc cccaaacact  11280
gcattatttt tgaagttatt taaaaagcaa aaaataggct gggcatggtg gctcatgcct  11340
gtaatcccag cactttggaa agccgaggcg ggcatattgc ttgagctcag gaattccaga  11400
ccagcctggg caacatgacg aaaccccatc tctacagaaa atataaaaac tagccaggca  11460
tggtggcgtg tgcctgtagt cccagctact ggggaggctg aaggggggagg attgcttgag  11520
cttaagaggc tacagtgaga tcttgtcact gcactccagc ttgaatgaca gaacgagacc  11580
ctgtctcaaa aaataaaatg aatttttaaa aaagtatttc ccaggcctca ctgtagaaca  11640
atggttccca aattttgctg catgttacag caacctggca agccttttt ttttttttaa  11700
acgggaaaaa acccacctcc ttcgaagctt ttaaaagtca tgattctagt gaacagtagt  11760
gagaactatt gccctaaagc gtgtctacca gatgtgtggg caatggatga acatcacttg  11820
agaacttgtt aaaaatatag actctcaggc tctactaatc agagtctgca ctttaaacag  11880
aaccctcagg tgatttgaaa cacactttgt ttccagaagc actgacctgg acgttttttt  11940
ttttcttgag agggagtctc tgtcgcccag gctggagtgc cgtggcgcaa tctcagttcg  12000
ctgcaagctc caccttccgg gttcacgcca ttctcctgcc tcagcctccc gagtagctgg  12060
gactacaggt gcccgccacc acgcccagct aatttttttt ttttttgta ttttagtaga   12120
gacagggttt caccatgtta gccaggatgg tctcaatctc ctgacctcat gatctgcctg  12180
ccttggccta ccaaagtgct gggattacag gcgtgagcca ccgcaaccgg ctgacttttt  12240
aaatctaaaa ggatgaggga catatattta aaagatccac atttatttca aataagcact  12300
tccatttggg cacagtgtct cacacttgta atcctagcat tttgggaagc cgatggggga  12360
ggattgcttg agtccaagac cagcctgggc aacagagtga gacgacatct ctacaaaaaa  12420
```

PCT/US2005/035850

```
tcaaagaaat tagccggaca ttgtggcgtg ttcctgtggt cctagctact ctggaggctg  12480
aggcagggga gaatcacttg agcccaggag tttagagttg cagtgagcca tggcaccaac  12540
acactcctgc ctgagtaatg cagcgagacc ccatctcaaa aaaaaaaaaa acaccgccaa  12600
caacaaataa ccacttccca gttaagcagc aatccaagta ttgcaattta gtttttagat  12660
gcagccactt gctggctgta tgatcttgga caggtaactg ctgtgagcat gttgcttctg  12720
tgaaattgaa caaatgataa tcctaaggtt gttaaattta acgtaaggtt gttacattta  12780
aaattaacta atacaagtaa agtatattac atatgtatag gtttatttac atttgtaggc  12840
tacttcagac atcttcaaag tcagagtcct tattttgcct tttagaggtg ctagatagtg  12900
aagaaaagat gaactttgta attaagttgg atgttcaaat ggtaactact ttttaaaaat  12960
aagggttttg atttaactgg taatactttg gctttttttct agtcccttac cccaggatat  13020
gcttaaatct tttatttatt ttttgagaca aggtctcaac tctgtcacca cgctggagta  13080
cactggcata tggatcatgg ctcaccgcag ccttgacctc ctgggcgcag gttatccacc  13140
tcagcttccc gagtggctgg actacaggcg tgtgccacca catccagcta atttttatat  13200
tttttgtaga gatgggtttt cgtcatgttg cccagaatgg tcttgaactc ttgggctcaa  13260
gcaatcctcc tgactcagcc tcccaaagtg ctgggattac aggtctgagc caccacaccc  13320
agccttaaat ttttacctat tccttcatcc tctcactagc ttctattctt accacatctg  13380
ctttatcttc ctctatataa aaatgacttc aaacttctca aaatctgtcc ccatgaaatg  13440
cctttagctt taatttcttc tagcaagtag tctctggttt acttccctaa ctttttatct  13500
tctaattctg cataaatttt tcctttatct tatatggcaa gattttgtct gtctagaata  13560
tggataggga ctacaatttg tcccttactc tgtatgttaa gatgtttaat aaattgtggg  13620
aaatggactt catgtgacag ttacgctaaa gtcttatttt taaaaaatat taaaatgttt  13680
tcccccttcca gactccaaaa aacaaagcta caatcttcaa gttatgcagc atctgcctct  13740
acctgccaca ggaacagctc acccactggg cagttggcac catagaggat cacctccgtc  13800
cttatatgcc agagtagagt actgaccagc aaaatggaga agatcagaga atgcagcagc  13860
agttttttt cttgttttct taccacttta ttctttcaga gtttaaagaa aatggactca  13920
tgcacagaac actatgcatt ttgaaacttg ttcatcctgg attttttttaa atcatttta  13980
tctcagaact taaacaaaaa ttagatgtcg tgcacggact gtgtgaaaga agatgctttg  14040
catatttgct gcactgcatc agtatcttac taaaaatgtg aaatgaaagg actattgtac  14100
actgaaatgc ttaaatgtat ctgaaagcac aaggtgatac tcatttttat ggtcttccca  14160
tttgtgctgg tttttgcctc tttgacatct gtcatcagta tttagagggt gagaagtgaa  14220
tgtaacaggt ataaataaca tttttaaaaa caataacttt gctataatca cagttgttcc  14280
agagcactgt cagatacatt ctaatgacca gaactggttt aaaaaaagaa aatacaacca  14340
tgggaaagaa atcttaaatg aaaaacgcat ctcattgtag gcatttttgc ctcatatttt  14400
actgggccat gtttgtttcc tggtactcat gtatttttt tttccagatc tctttcccca  14460
agttgctatt gtaagagtat tctgctgcgt gtggatgcag ttatacacat taaagcagat  14520
ctggagtctg aagtagctat aaagcagcta taaaacagaa atacatgcat agctgcagaa  14580
accatgatag gtagaggact tttcttttgg ttttgttttg ttttggtttg ttttgttttt  14640
ggttttacag agaagagatt tttattacaa agaaaaaaat tccagtgaat tgtgcagaaa  14700
tgctggtttt tacaccatcc taaagaaaaa ctttacaagg gtgttttgga gtagaaaaaa  14760
ggttataaag ttggaatctt aaattgtaaa attaaccatt gagtgtcaaa gttctaaaag  14820
cagaactcat tttgtgcaat gaacataagg aaagactact gtataggttt ttttttttt  14880
ctccttttaa atgaagaaaa gctttgctta agggttgcat acttttattg gagtaaatct  14940
gaatgatcct actcctttgg agtaaaacta gtgcttacca gtttccaatt gtatttagct  15000
tctggttgga atttgaaaaa aaaagaaaaa aagaaaaaga aaacctaaat aaaataggtg  15060
aaagttccct gactattcag gtgaatacac aaagtttgaa gtgttaactt tttctttcca  15120
tttcactgat gttactggtc accttagaga attatttcat agtctgtggc taaatagtaa  15180
attcagaaga aaaatacctg gcaattgagt gtgtaacttc aacaagaaca ggaatcaaga  15240
acatactgtc agctttcaac agttagcaac ctggccttat gccttgcttc atgggaaagg  15300
gccattctta aatttcaaaa tgctttcatg tgtcctctta tttaaaaatt agaatctatt  15360
tgaaataaca ttttgaatgt ttattataac caggtactct tctaagctct tgtcttaacc  15420
tctcaacctt tggtggaaat agatgcagag gttaagtaac ttgctcaagc tcagatcata  15480
agtagtggag gatttaaaac caggctggct ggctcttaag gcctatgctc ttaatttacc  15540
atgttgaatt aatttaccat attgaattac acttatgttc accaagttag gcattttggc  15600
agccattgtt tacgttttta ttttggaata atttagaaaa gttaccagag taatatgaaa  15660
gctgttgtgt aatctttacc ctcatttta ttattttgcc acatttttt catttctct  15720
gtacacttat acctgtgagc tatttgagtt tgttgcacac tttgtgcttc cttacccctt  15780
ccttagtact tcggcatatg ttccaagtac aagaatattt catataacta gagtaaaatt  15840
accaaactca gggaatgttg atactcttta tcatccatat tcgttttgtt gtcccagtat  15900
ccttggtagc ttgttttaga tccccccctc tagagtacag gatcattgaa tttagttgtt  15960
ctcagttgtc tttaatgtgg aacagttcct tagcctttat gtgttccatg acctctatgt  16020
tttttggagt acagggcaat ttttcttgta aattgttact cattttgcat ttgaattgtt  16080
```

PCT/US99/30569

```
tattcatgct taacgccctt ctcaagtata ctctccatct gctcttcatt gatgttactt  16140
ttgagcgcct ggtcaaggtg tcctggtttt gccctatgtg tggtacttac tactagcaat  16200
ctctgggaag caatgtgcaa ataccctgtt cctttatcag gagctccctt ggcgattctt  16260
tccagactaa aacccaaacc agtctttaac tatgatggtt acaaaatagt gattttccaa  16320
atctaatgct ttgtccattt acagcatttg ttgtaagaga gtgttctatc tctgccattt  16380
attatctacc taaacactat ggcctcatat tttttccctc caaatcataa tttgcatgcc  16440
tttattattt tgagcatctc ctttcatgca taagatactg taacctttct gtcccagcct  16500
caagccctgg agtcagctgt ttctccaagg agcccagctt ccttttagtg ggaaatacta  16560
gaagtaaaca tctgggactc ctgtatgctc actgctgcta ttgctactgt ggagtcttct  16620
gccctttcac agtggacaga tcagcaggcg atctaatgta gggaaaggat ttgtctttaa  16680
ctgttaactt gacttaaatt tacttaaagc tgcatccttt ttagtcttta gtcatgaaat  16740
gttcattaag attccctgac agaaatcaag taagagtcag ctgggtgcag tggttcacac  16800
ctgtaagtcc agtacttggg gggccaaggc aggaggattg cttgagccta ggagtttgag  16860
acgaggctgg gcaacagtga gaccttgttt ctacaaaaat aaaattaggc gtggtggcac  16920
acgcctgtag ttccagctac tcaggagact gaggtggaag aatgtcttga gcctgggatt  16980
ttgaggctat gggaagctgt gattgtatca ctccagcctg agtgacagaa gctgtctcag  17040
agtgccacag tcaactgaac ttggagactt ctgagaagtg aacttggtct tttcaatact  17100
atagacttgg aggtttgaga tctgcatggt tttattctcg gtacaagaaa aggggctagt  17160
agcatgcttt ttttcttccc cctctattgg accatttcct gtaacactaa catgcttagc  17220
ctcaaacttt tcttgaggtc ttttttaggc atatggctca atctatttta tttttcaata  17280
tgggctgtag ttcatatatt ttgaagtttc ataatcttaa aaaaaggaaa tgcaagtgta  17340
gcttggcatt ttagatctgg gaaggaccta agattcgcta aggattggcc attgctgtgg  17400
tctccatgtg tttcccctaa atttgtatgt taaaatccca acccccaagg tgatattagc  17460
aggtgggggt ctttgggaag ttattagatc acgagggcag aaccctcaag attggagtaa  17520
gtgcccttac aaaagagaac ccaggctggg cacattggct cacacctgta atcccagcac  17580
tttgggggggc caaggcaggc ggatcacctg aggtcacgag ttcgagacca gcctggccaa  17640
catggtgaac cctgtttcta caaaaaacta caaaaattag ctaggtgtga tggcacatgc  17700
ctatagtccc agctacttgg gaggctgagg caggagaatc acttgaaccc agggggcaga  17760
gattgcagtg agccgagatc gtgctgctgt actccagcct gggcaacaga gcgagactcc  17820
atttcaaaaa cgagaaccca gagggctcac ttgccccttc caccacacag tgagaaggca  17880
ccatctatga gccaggaagc gggccctcac ctaacaggat ctgctgggcc ttgacccagg  17940
actttccagc ttctagaacc atgaaaaatt tctgttgttc ctagcagccc aaacagaatt  18000
agaaccatta atttctattt ctcctttagc ttaacactgg actttagttt taatcttaac  18060
tgagagtggt cctgctagtt tctttgcttt acctgttttt aaaacacttt gagctaagaa  18120
tttttcaccc aattatcaca catgattaga aaacaagatg cttaaagtga aaaaagacac  18180
ccccaccttt accctacttg atatccaggt ccttttcctc caagaatatt tctagctgct  18240
tctggttttg ctagtttatt tcaaaaatta caattgtttg agtcaaatct atacttgata  18300
ttcattgttg ggtttcttta ggtcattctg ctgttctctc agtttcccag gtgttttgtg  18360
tgtcttcctt gtgctattaa ttttcctgtg gccttgttgg tcagatccac agaggtaaat  18420
gcaagtgttt ttccttgctt cagaacatgt gctgtaatca ctatatcttc tcctaatttt  18480
gcaggtgaca tgtaccttga aagaaaatga atatagttaa cagcagataa tttttcaaag  18540
ggaaagttgt gtgcatctca caacagtgtt cctatgtaac ttattttact cctaaaaata  18600
gttttaacgg tagtattggt aagctttctg tactatcaaa tgtgaatggc tggtcctaac  18660
caggttctat tttacccatt ccttacccac acaagtttct tttcccaaat atgtgagaag  18720
aggttttctt gcctcccctt ttttcccttt acatttccca cttcacattt atttggggct  18780
ggtgaaagat ttcctccagc tttcatttaa tctccttaac ttcttagatg aaatatcact  18840
tggtgtctgt atattgtcct atccatattt acaatttatt tgactctaaa atgacaatat  18900
aacaactata aggaattgat atgatgtcct tacaatcttg atgatggact gtctatattt  18960
ttaagagatg tacatcctag tcacttgtaa tcataagttg tctttaactc agctggctcc  19020
agctaattaa aaaaaaaatt ggggagatga ggattgttta aaacaaatgt taatgtttta  19080
aagggaaata atttccttac agtttatttt tatgtttctg ctttttagaa agaaaccttt  19140
aaaaaggata tgtatttttg ccatattcaa aataagactt cagtatttat ggctaggagg  19200
tataagaaag gtggatctgg ccgggcacga tggctcaagc ctgtaatccc agcactttgg  19260
gaggccgagg tgggcagatc acctgagggc aggagttcga gaccagcccg gccaacgtgg  19320
tgaaaccccg tctcaactaa aaatacagaa gttagctagg catggtggtg ggcacctgta  19380
atctcagcta cttttgaggc tgaggcagaa gaatggcagg aacccaggag gcagaggttg  19440
cagtgagccg agatcgcgcc actggactcc agcctgggca acagagcaag attccatctc  19500
acaaaaaaaa aaaaaaaaaa aaaaaaaagg tggatcttat tgctggaaag aacaggcttg  19560
tctttaattc acatacctca atgtaaagaa atgaaaaata gtatgtttag tagtagtttg  19620
gccagttttt attatttccc taaattttgt cttagaaatc aagaattttg gctaacagcc  19680
attaacttaa actgagggaa gataaggaac cctttgtgct acagatgagt aaacattaag  19740
```

PCT/US2005/005960

```
tccggggaat ttggagattg acattttgtc agtaatactc taaaatttcc ccttttgttg  19800
ttttggaacc tcgcttgttt ttaacctaag tcacagtcta acaggcatcc tcagtctgta  19860
taatatagga cttgatgtgc aggggtggag taaatttggt accatgtcaa gtaaatcaaa  19920
gagtgaatca tgaagtgtta actgactgaa acattattca tttacttttg aaatatctct  19980
aacttttgaa agaccatgtc ctagtttttg ttgaagtgaa tcagtttttg aagcgtaggc  20040
agctcttgat ggccaatgct tttggcaaca catatttgaa aggccaaaac tatgtttgac  20100
ttactgaaaa ttccttaggg ttctaaaggc aaaagtacct tagtagatca tgaaatgcag  20160
tgctaggttt gaagatctct ctgctcttaa tagagacttt tagggaaaat caagtcatct  20220
actgatctca cctcttacca catgaaataa ggactgctga atatgcacac cagtaacata  20280
agcagagcct ttcttttctg tacatcttaa tttcaaaaag agcatttggc tgcatcttgt  20340
aatttgctta ttgtaccctc aatttaagtt attcccatga agagggactg aatgtttctt  20400
aagtaaactt gataaaatat ttagattcct taaaagccta cattggctgg gcgcggtggc  20460
tcacgcctgt aatcccagca ctttgggagg ccaaggcggg cagatcacaa ggtgaggaga  20520
tcgagaccag cctggctaac acggtgaaac cccatctcta ctaaaaatac aaacaaatta  20580
gtcgggcatg gtggcaggcg cctgtagtcc cagctactcg ggaggctgag gcaggagaat  20640
ggtgtgaacc cgggaggcgg agcttgcagt gagccgagac tgcaccactg cactccagcc  20700
tgggccacaa agcgagactc cgtctcaaaa aaaaaaaaaa aaaaagccta cattatttcc  20760
attaccctca tatctactca caatggctct ctcaacctga cctctcagtt agttacattt  20820
ttgttgctta ggtggaaaaa gcagttgtct tgaaactaaa tccctgtgcc cagctctttc  20880
tttattgaat ggggctgcag tagtaccagt ttatgttgga attgagtttc ttacattttg  20940
gaagtttgac cctgaggggc actgttccct gatcatgtag tttaactcac agaacatgtc  21000
tgtgtagtca cagggagaga tccaggattg ctgcccattc ttaaaactca acactttggg  21060
aggctgaggt gggtggacac tggaggtcag gagttcaaga ccagcctggc caacatggtg  21120
aaaccccgtc tttactaaaa acacaaaaat tagcccagca tggtggcgca cacctgtaat  21180
cccagctact agggaggctg aggcaggaga attacttgag ccccagaggc ggaggctgaa  21240
gtgagccaga ttgtgccgct gcactccagc ctgggtgatg gggagactcc gtgtccaaaa  21300
aaaaaaaaaa accccagcaa tggtgttcag tttgttagag taagattata atgtgtatat  21360
gaactctaac tttactttga attgtatgta ctcaatacaa tcctcatagt gttataagtg  21420
gtatttttaa aattaaataa tatttatttt ttgtagagat gggggtcttg aactccaggc  21480
ttcaagcaat cctcttgcct cggcctccca aagtgctggg attataggcg tgagccactg  21540
cgtctggccc tgaatggcac ttttaaggac tgtatgaaac agttatgagc catcagtttg  21600
tgatttttcc ccctgcatca gtatacacat taaaagctga atgttgctct tttgaatgtt  21660
tgggatcatt ccctttttac tattgataca cactgtactt gcaaattaac tgctctagtt  21720
ctagatttta aggctggaat attttaggac aaaatctata ggtgcagtta aggagataag  21780
cagctaattg aatctcatgc gttactaata atataaatgt gtttagtctc agttgtttag  21840
acagttatca cacagaaggg atttggaata cagtttggat acatacgtta tgttcatatc  21900
gacactgact ccgggtgctc ccctttccgt gcatagcaga gccattgttg atatgttatc  21960
tactaacgtg gctgtcaaac cgccgtggag agtgcctatt gcattggtat gctcttcttc  22020
tactttcatt tcacaaatca ctttcccagg agcagcagag acaagagtaa tct         22073


<210> 2074
<211> 1346
<212> DNA
<213> Homo sapiens

<400> 2074
ggaaggcctt tttcagtctc actcaaacct tttttcagtg tggttaccgg ttcttgcacc     60
caccctggtt gcttaccata ttgcagcttt gttacttgaa tagtatttca gtttttaaca    120
catttgtttt tgtgttggtt ctgtttccta gtatggctgt ttttttgttt ttgttttgag    180
atggtgagat ggggtattac tctgtcatcc aggctggagt gcagtggcat agtcatggct    240
cactgcagcc ttgaactccc aggcccaagt gatcctccca cctcaacctc atgagtagct    300
gggaccacag gtgtgcaccc catgcccaac taattatttt tgtagagata ggatctcact    360
gtgttgcccg ggctggtctc aaactcctgg cctctagtga tcctcccgct ttggactccc    420
aaagtgctgg gattataggt ctgagccacc atgcccagtc agcgtttatc agattactta    480
ccattactac tttgtcctgg ggaaatcctc ttaatcttta aaggcgcaat ccaaaatcat    540
aatgttcccg tgttacttac tgttactttt ttttttttct cctatagtgg tttgatgata    600
agaacccaat ttgggccggg cgcggttgct cacgcctgta atcccaacac tttgggaggc    660
taagccagat ggatcacctg aggtcgggag tttgagacca tcctgaccaa cataaagaag    720
tcctatctct actaaaaaca caaaattagc tgggcgtggt ggtgcatgcc tgtattccag    780
ctacttggga ggctgaggca gaagaatcgc ttgaacccag gaggcggagg ttgcagtgag    840
```

ccgagatcgc gccattgcac tccagcctgg gcaacaagag cgaaattccg tctcaaaaaa 900
aaaaaaaaaa ttggagtttt acagataacc acatcttatt ctgggaaagg atttgaagca 960
agttgggttt tatatttggc tgtacttgtc ctcttcagca gtataataag ccccttaagg 1020
ctgaagtaac cttattccta ttgtttagta gctaatagca tgcttttgat atgcttatga 1080
tcatactaat aatttaatat ttgaattgta tggaagtaca attcagtatc attttacata 1140
tggtatattg tgatgctgta tcatatttta tgttacggtt tataagaaaa gctcctaggt 1200
ataaaatgct acatagcagg aacttggttt ttcaatgtta ttatttccta ctgtttttga 1260
cgtaacggca ataaaatttg tttgaaccaa aatggactaa caattatttg tacaactcag 1320
tattgtctaa atatcatatt gttaaa 1346

<210> 2075
<211> 2177
<212> DNA
<213> Homo sapiens

<400> 2075
caaaagctga cgacttcggt ctgcgccgga agtgcatgag ctgccgatgt ggtgcttagt 60
gattgcggtt tcggtcgctc tcccgtgttt cccgggctgg gtatttgcct cgcaccatgg 120
cggtaaggag gatggatagg gcggggtccg caccagcaaa gctctccagg ggctgtgaga 180
gtgaaaactg agaaagaaca ttaagggata tggggtgggc cagagcgggg cgccatccct 240
ggccagaccg tgctagagct gggctgggggg gatggcggcg caggaccata ccaggactag 300
tgccagagcg gggtgggcat cagtaccagg gcaggccaga gatctaagtg acctgaggtg 360
ggggttaacc cagatcggga ctacgccagc ggaggcctga gagaggcacc attcaactcc 420
gctcaggagt acccttggaa gagtcgttag cctaaagcca gactaccacg ggatccagag 480
gcggtattag cttaggattg aattgttcca gggcgagcaa gaggcgattg atcctagctg 540
cgggtgctgg agagatggcg tcagccctag gcagaatgga ctggaggatg ggtggacatc 600
ccagggattt tgctaggttt ctgcactacg gggacctggc tgagttgcgg atggagctct 660
atagctcacc aggctggtgg ggagaatgag gaggaccgtg gcctcctgac ggcatctcat 720
cattcctctg cagcccaagg gcaaagtggg cacgagaggg aagaagcaga tatttgaaga 780
gaacagagag actctgaagt tctacctgcg gatcatactg ggggccaatg taagtgccta 840
cctccttgct tctatgccca cttatagtca gttccctagt cctcagccct gcttggtgac 900
gaggagtggt acccgaaaaa gctctagaag agagctccag tcaaaaagaa atgagagatc 960
tgggcacaga gaaagtgcta actagtaaaa cacaaagaaa atgaaggcgt gagtcgtagc 1020
tgaatttgag agctcttcct acctccaagt acacaaaggc ttctttcctg ggctgagttg 1080
ggtgtcagag gagagtgggt atttgggatt cagggagcag ggccctttct tcaaccctgt 1140
aagaacaacc ttgctcctcc cacagcctgg cctaattctt ggtcagagtt gagggagacc 1200
catggtttgg aggtaacttc tgaccccaac ctgatcctgt gattgcttgc aggccattta 1260
ctgccttgtg acgttggtct tcttttactc atctgcctca ttttgggcct gggtaagtat 1320
ctccatcctg ggaggtggat gagtgcgtag ggtcagtggc tggcctttga taccctcatt 1380
cttgctctgc agttggccct gggctttagt ctggcagtgt atggggccag ctaccactct 1440
atgagctcga tggcacgagc agcgttctct gaggatgggg ccctgatgga tggtggcatg 1500
gacctcaaca tggagcaggg catggcagag tgagtgtccc ccaccgccag cccaggtgag 1560
cggccccagg gctggggccc agatagccca agaagcacag ctacttgtaa cttgaaaagg 1620
gtggaaggga gttgcaactt gaaaagggtg gaagggccca tatgctgtct ttccagcttt 1680
atttctatcc acaggcacct taaggatgtg atcctactga cagccatcgt gcaggtgctc 1740
agctgcttct ctctctatgt ctggtccttc tggcttctgg tatgtgggct gggggcgctc 1800
ccaagaaggg gcatctaacc ctccccatct tttattccct gcatcttgct tcaagttacc 1860
gtttctcttg taggctccag gccgggccct ttacctcctg tgggtgaatg tgctgggccc 1920
ctggttcact gcagacagtg gcaccccagc accagagcac aatgagaaac ggcagcgccg 1980
acaggagcgg cggcagatga agcggttata gccattgaca ttgtggccac aggccactgg 2040
ccctgggtgg ctctgtcagg gtgcacagcc cctcatgcct ggagcaatga gggtctagtc 2100
caggggccaa aagcagtctg aggtattggg tatacttata ctctataggg tcgttgaata 2160
aatggcttag aatgtgg 2177

<210> 2076
<211> 2177
<212> DNA
<213> Homo sapiens

EFS Web 2.0.1 20050930.0

<400> 2076
caaaagctga cgacttcggt ctgcgccgga agtgcatgag ctgccgatgt ggtgcttagt 60
gattgcggtt tcggtcgctc tcccgtgttt cccgggctgg gtatttgcct cgcaccatgg 120
cggtaaggag gatggatagg gcggggtccg caccagcaaa gctctccagg ggctgtgaga 180
gtgaaaactg agaaagaaca ttaagggata tggggtgggc cagagcgggg cgccatccct 240
ggccagaccg tgctagagct gggctggggg gatggcggcg caggaccata ccaggactag 300
tgccagagcg gggtgggcat cagtaccagg gcaggccaga gatctaagtg acctgaggtg 360
ggggttaacc cagatcggga ctacgccagc ggaggcctga gagaggcacc attcaactcc 420
gctcaggagt acccttggaa gagtcgttag cctaaagcca gactaccacg ggatccagag 480
gcggtattag cttaggattg aattgttcca gggcgagcaa gaggcgattg atcctagctg 540
cgggtgctgg agagatggcg tcagccctag gcagaatgga ctggaggatg ggtggacatc 600
ccagggattt tgctaggttt ctgcactacg gggacctggc tgagttgcgg atggagctct 660
atagctcacc aggctggtgg ggagaatgag gaggaccgtg gcctcctgac ggcatctcat 720
cattcctctg cagcccaagg gcaaagtggg cacgagaggg aagaagcaga tatttgaaga 780
gaacagagag actctgaagt tctacctgcg gatcatactg ggggccaatg taagtgccta 840
cctccttgct tctatgccca cttatagtca gttccctagt cctcagccct gcttggtgac 900
gaggagtggt acccgaaaaa gctctagaag agagctccag tcaaaaagaa atgagagatc 960
tgggcacaga gaaagtgcta actagtaaaa cacaaagaaa atgaaggcgt gagtcgtagc 1020
tgaatttgag agctcttcct acctccaagt acacaaaggc ttctttcctg ggctgagttg 1080
ggtgtcagag gagagtgggt atttgggatt cagggagcag ggccctttct tcaaccctgt 1140
aagaacaacc ttgctcctcc cacagcctgg cctaattctt ggtcagagtt gagggagacc 1200
catggtttgg aggtaacttc tgaccccaac ctgatcctgt gattgcttgc aggccattta 1260
ctgccttgtg acgttggtct tcttttactc atctgcctca ttttgggcct gggtaagtat 1320
ctccatcctg ggaggtggat gagtgcgtag ggtcagtggc tggcctttga taccctcatt 1380
cttgctctgc agttggccct gggctttagt ctggcagtgt atggggccag ctaccactct 1440
atgagctcga tggcacgagc agcgttctct gaggatgggg ccctgatgga tggtggcatg 1500
gacctcaaca tggagcaggg catggcagag tgagtgtccc ccaccgccag cccaggtgag 1560
cggccccagg gctggggccc agatagccca agaagcacag ctacttgtaa cttgaaaagg 1620
gtggaaggga gttgcaactt gaaaagggtg gaagggccca tatgctgtct ttccagcttt 1680
atttctatcc acaggcacct taaggatgtg atcctactga cagccatcgt gcaggtgctc 1740
agctgcttct ctctctatgt ctggtccttc tggcttctgg tatgtgggct gggggcgctc 1800
ccaagaaggg gcatctaacc ctccccatct tttattccct gcatcttgct tcaagttacc 1860
gtttctcttg taggctccag gccgggccct ttacctcctg tgggtgaatg tgctgggccc 1920
ctggttcact gcagacagtg gcaccccagc accagagcac aatgagaaac ggcagcgccg 1980
acaggagcgg cggcagatga agcggttata gccattgaca ttgtggccac aggccactgg 2040
ccctgggtgg ctctgtcagg gtgcacagcc cctcatgcct ggagcaatga gggtctagtc 2100
caggggccaa aagcagtctg aggtattggg tatacttata ctctataggg tcgttgaata 2160
aatggcttag aatgtgg 2177

<210> 2077
<211> 8925
<212> DNA
<213> Homo sapiens

<400> 2077
gttggattag ctaagaaaat tttattttgc tccgtgcgtt caaggagctc acacacatgc 60
acatgcatat gcatgcacac acacacatac acacacactc acatgcatac acacacggct 120
aatactgctc aaggcatggc tcctgggcac agagttctgg ggccagaatt ctgctctggg 180
ccctcctcac tctgtcatct cctgcactgc agtccagggt ccagatagat ttccgggata 240
cagcaccttc acacctccag gccaggaccc ttgcttagtc ccagtgcctg caccaggtca 300
tctccgagcc cactcttcaa cgtccttctc actgcaggga cagagcaggg ttggaggggg 360
ttgatggggt tcaggtgggc agtgggattg tgggggggtta cttacaagac ttgcggttgc 420
cgcgggaacg cttgcgttcc ctagcagcta aggcacgagg actgctcttg gtcactgact 480
gcaccagaag gtccatgatc tcatctgatg tatcactggg taaactggag cctgggggtt 540
cttctgggga tgcagtggag ggccccactg tgggcatgat tggggagctg ctctggacca 600
tgcctgagga aggccagata gcaaagtcag gccaaggtgg cactggagcc cattccccac 660
agctgctatg ggcctcacct ctgctgcggc gattgtgtgt ggtgtcctca ggcctgctgg 720
tcagcagact cttcatacta gcatgactgt cagcatctcc ccggcctggc ccgctgctca 780
ctgctactgg gacagagggg ttgctggggg cttccccagc cacacctgag aacttctctg 840
tctggagaaa gaagaagggt gagctgggag gagcgaagga aaccaaggag gtggcagtca 900

agactaagac ctggaagggc acccacctcg gtgatcatgc gtccccgggt cttgttgcgc 960
tcacggtatg tggcctgctt ctgctgctgc tgtagcactc gttcccggca agtccgatac 1020
tcaagcgcaa attcccgcag cgtgtggcag aactgcatga tgcgcacttc acgggccgcc 1080
tgcggggtgt agcccaggta gagcaggaag gcatggaacc taggcaggtc agagtaggga 1140
gggacagtaa gtcctgctta ttgtctgagg gagggtggtg gccgtcctgc ctctcttggg 1200
tccatgcccc tacctattgc agacacggcg gtgcactatc cttagcatgg caacacggcg 1260
ggcacactgg tccaggaagt gggtgaggcg ggcacgcagg gctggggcca gctcatgctt 1320
ggccaagctc cgcaggctct cctcggctgc ccggctccgg cgctccagct gccccaggtt 1380
ctcagtcagc tgttcaaagt ccacctgaga aagcaagggg gtgcacatac tgtcccccca 1440
caccctgtag acaagacatg gcccgaggct gcttctgggc cagagtggcc agcttgggcc 1500
ctaaggacac agacatccaa atctcataga ctagtgcaag agacacaagt ccatctgatg 1560
tgaatgggga gcagaaggtt tactgggggа agtggcagtt aaacagaccc aaagactgag 1620
taggtgtggc caggccaata gaggaaagag catttctggc agagggcata gctcacaccc 1680
aggtggctgg agcaagccct ggcacagcag cccaaatggg gagaaggggg aggagccagg 1740
cccaggaagc agcgctcctc atgccttgtc cggccttggt tgattctggc aggtgctaac 1800
cttggcacag cgggtcaggg cagggatttc tgaatagagg tcagaggact caggccgggt 1860
ctggagcact agggagcaga gatggtgtag cagtgactgt cgacgcaccg tgtccttcac 1920
ctctgacacc ttctccaggt agctcagctc aaagccgctg ctctgaaagg acccttttctg 1980
agcctgggcc tggttggctc cagaaccctg actcccccta gtccccatgt actctcactc 2040
acctgggagc cattgaggaa gttgcccacc gctaggaggg tagccaggat gcagcggaag 2100
gtggcattct gtaccagctg ttccataccc actttcaggt caaacagtgg ctcagcaatt 2160
tcctggtatg ggagaccagg gactctcaga ctacatggtc atgatgctta cctgtcccta 2220
ctgactgtcc cactccaaga cccaggtacc cgctccatgc tgtcatagtc cagcttgaag 2280
gcccagagtt gtagacgagc agcgaggccg ccaatggagg caagagtcat caggaagttc 2340
tcggctgggc ccaggggtat gtcagggttg gccagctggg cttcctcaat cttctgccgc 2400
tcttcctccg tgggcatcat ggtcagtagc ttctgaggat gtagccagag cctgacatgg 2460
ccccctcaat gcaggcctga ggcctgaggc attggtcttg acccctcagt catctagggg 2520
aggccccagt gtctggggac tgccctgcag aaatgccaag cccatgccca ccaccagagg 2580
gacaggaaat gcccacctac caaaggagaa ggccagacct ccccccaaca cccatagctg 2640
ggtgacctca cctcaatgcc atccttgctg acagcaaact catcaaagtt gagcagagca 2700
gccttaatga catgcacagg tggcagtgtg gttaggccga tgttgatggc gttgctgcgc 2760
ttggggtcca gcactgtggt cattgtccgg cggccctctc cagctttctg catggttggg 2820
ggaagggcag tgtaagactg aggaaggggg cctgacgcgg tggctcacgc ctgtaatccc 2880
agcactttgg gaggccaagg cgggtggacc acgaggtcag gagatcgaga ccatcctggc 2940
taacatggtg aaaccccatc tctactaaaa atacaaaaaa aattagctgg gcgtggtggc 3000
gggcacctgt agtcccagct actcgggagg ctgaggcagg agaatggcgt gaacccggga 3060
ggcggagctt gcagtgagct gagatcacac cattgcacta catcctgggt gactgagcaa 3120
gactctgtct caaaaaaaaa aaaaaaaaaa aaaagactga ggaagggact agctgggaca 3180
gcaacctcag agggcactcc aaggccctcc tctagattgc caaatgatcc cacaactgac 3240
aaactggcaa cctggaatgt gtaagtcatg gggatgagct tagattcttt tgagacaggg 3300
cctggctcta ccatctaggc tggagtgcag tggtgccatc atcgcccact gcagcttatc 3360
ttctgggatt ttcctgcctc agcctcccaa gtagctggga ttacaggcgt gtaccaccat 3420
acccaactat ttttttttt aacatttttt tttccgcctc ccaggttcaa gcaattcttt 3480
tgcctcagcc tcccaagtag ctggtattgc aggcatgagc caccacgccc agctcatttt 3540
catattttta gtagagacgg ggtttcacca tgttggccag gctggtctca aactcctggc 3600
ctcaagtaat ctgcctgcct tggcctccca aagtgctggg attacagggg tgagccacca 3660
tgcccggcta attttttttt taacatttat ttatttttat ttatttagtt atttttgaga 3720
cgaagtcttg ctcttgtccc ccaggctgga gtgcaatggt gcgatctcga ctcactgcaa 3780
cctctacctc ccgggttcaa gtgattctcc tgcctcagcc tcccgagtag ctgggattac 3840
aggtgcccgc caccacgctt ggctaatttt gtgtttttag tagagacggg gttttgctaa 3900
tttgaccagg ctggtctcga actcctgacc tcaaatgatc cacctgcctc ggcctcccaa 3960
ggtcctggga ttacaggcat gagccactac acccagacca acttttagta gagataatgt 4020
ctcactatgt tgcacaggct ggtctcaaac tcttggatta caggtgtgag ccaccatgcc 4080
cggccacatt tagattctag ttggggcact gctgatccct tgttaggaga ccttggacaa 4140
tttcctactc ctttctttgc cttggtttcc ccatgtggga agtgagtgac tagctccaac 4200
aggtcagatc cttaagctct gattccctcc tgcctccctt ggggctacct tgcagatgag 4260
tggatttacc ttggagggca gcacctcttt ggcacgagac tcaaagaggt gttccagtcg 4320
ggccgtgtcc actgagacag ggtccagtga agcccagagg gtggcgcagg gcccaaagcg 4380
gcttgcagag actccatggc ccccagccag cttcagctca cgccagaaaa gttttactgt 4440
cttcctctta gtggggaggg ctgagctgtc aggcactgaa tggggaagag gggcagccag 4500
aggtagaggt ggaggtggtg ggaaggggcc tttgatgggt gggggaggtg gaagtggggg 4560

09505002 .t20040

EP 0 954 600 B1

```
aggggggggt actcccgaga gcaggggcag tgggggtgag ggagctggga tgtctttccc   4620
agcctccaca gactctacat tcagcatgtc ctggtcttca tcctccccta gatctgaaaa   4680
gtccaggtcc ccaatagaga gcctgggtgc acgggtaggg agctcccaga tgggctcagc   4740
cttggggctt gctggtatca gtggctcctt gggctctggt gcaaggcttc gctgggcccg   4800
gagcaggaca caggggggcag ggctctgggg tgttctggct gcaggggctg tctctgggga  4860
gtcccagagt tgccgggcat ctaaagaaag ggaaggagct gtcagtgcca tgccccctgt   4920
ggggcaacaa agcaacaggc aggctctgcc tgctcaccca cctactcacc tgggtgtcca   4980
cccgcctcat tgggcatggc cccggcaagt gtctctgccc ggccctgggc cagcgcaacc   5040
tgcttctctg tttctgctgc cgccacattc tccaggaacc gggctctgag ggaaggtgct   5100
tgtcactgac agcgtctgac acaccccagc ccaggtgtac atgccttgct gagcccctgg   5160
acaccacccc caattgcagg cacgcacaga cacacaggga acagtccatg cgctgagcag   5220
accagaacca cacccccccc aaggccagcc cctcttcagt cctccacatc tggggaggat   5280
tactaccaac ccagcattcc caggtgaaaa cacagggaga ggatctactt aacatctaac   5340
ttgcaacctc gttcatgttc actgtcctgg ttttttttg gttggttttt tttttagaga   5400
cagggtctca ctctgtcagt cacccaggct ggagtacagt ggtgtgatca tagctcactg   5460
cagcctcact ctcctgggct tgaccctcag cctcccaagt agctgggact acagacatgt   5520
gccaccacgt ccagctgatt ttttaatttt tttgaggaga cagggtctca ctgtgttgtt   5580
caggctggcc ttgaattcct ggcctcaagc agtcctccca cctcagcctc ctgaagtgct   5640
gagattacag gtgtgaatga tgcacccagc caaattttaa aaaatttctt tgtagagatg   5700
aggtcttact gtgttgccca ggctggtgtc ttgagtctag acaaggactc ttagagcagg   5760
ggaaggggat agctgtccca atgggcatat caggctgtcc ctcccttggc atgtctggta   5820
gcttctggga gcctatgccc aggaaagggc ctggtaaaca ggccaggtgc ggtggctcac   5880
gcttgtaatc ccagcacttt gggaggcaga ggtgggtgga ttacttgaag tcaggagttc   5940
gagaccagcc tggccaacat ggtgaaaccc tgtctctact aaaaatacaa aaattaccca   6000
ggtatcctgg tgcaggccta taatcccagc tacttgggag gctgaggcag gagaattgct   6060
tgaacctggg aggcagaggt tgcagtgtgc tgagatcaca ccactgcact ccagccttgg   6120
agaccgagca agactctgtc tcaaaaaaaa aaaaaacaaa aaaaaaacgg atgtggtaaa   6180
cagtggaccc tcagtttatg ctgaaataat gggtgcaatc cagtgtttct tttctggccc   6240
ctccagcctc tgtcagctct cagtccctgc ctttccctca gccttaggtt acccctccac   6300
ccccacacca cacaccacac agcaccctag gtcccctccc tgctcgcttc tgagctgaag   6360
acttggcaga atgagcccca ggttgggtgt ccacatcccc atctctggct gctaaggtgt   6420
tgctattgaa gcacagggac cactgtgacc ccagtgaatt ggttcccagt gcttagcctt   6480
tgggttaccg aggaggcata tgtctgggag aggataggcc tgagtccccc agctttggtt   6540
gcatcaggca cgtgaaaccc ctgctggggg aagcaatgct gaagccctga gcacatggca   6600
ggcctggcag gccggcctct gtacttactc cagcctggcc tgcccaggag gggactgggg   6660
gacgggtggg ctctcagggg ccctgggtag gggggatgag aggaagagat ggtaactgtg   6720
gtgtcagctc catggttgct catacccaca cagagctagg cagtgatatt ggggttcctt   6780
cccagccgca gtgggaagtg ggggaaggta tgacacgagg aaactggaag tggaggggag   6840
agactgacgt ggagcaggac agggtgctgg aagagacaga ggcagcagaa caagggagtg   6900
acagatagtg ggcgggagac atgacaagag gcaaagacag gcagaacgtc ggaggagaca   6960
aaggaaacca caggaggagg agatccagtc agagccgaac cccacccgct ggcagtcact   7020
taccaaacgg aagcagtttg gtgaagtctg gaaagagaga gagagaaagc acgcgtttgg   7080
gcagaggagg ctgagtgccc atggaggggc gcaaagcgga gggacaatgg gagagaggac   7140
tccagggtgg cctctgtctc cctacttact tgtagatgct cctctcgctg gaggtgtcag   7200
ctgagggtgc cacagagatg gtaggaaaaa ggttcactga agcttggaga ccggagggag   7260
ggcccacagg gctggaggcg gggcctgtca gcagggcggg gccggtggaa gaggtggggc   7320
ctaccggtga ggcggggcct gtggggctga aagcaggggc tgtcagtggg gcggggcctg   7380
agaagctgga ggcggggcct gtcagtgggg tggggcctgc ggggcgggag gtggggcatg   7440
tcggtagggc aggcccagtg gaggaggtgg gggctgtctg tggggcgggg cctgaggggg   7500
ttggggtcag ggcctgtcag ctcactgggc catgcctagt agatccaccc tttcccatct   7560
acagatgctc gtacttaccc aggttccggg gcacgcgcgg ggcagccccc gccttccaga   7620
gaacggcggc tcctcttgcc ctcctcagaa gaaggctttc gtcgttcccg ccgcccacca   7680
gcgcctgggg cttcttcgat gtctccatcc tccaatttca gggcgttcta gcagaggcgg   7740
accaggatgt aagaaagtgg ttaacgtgta tgcaggtggg gtggggcgct ggggactgcg   7800
cttctctctt ccctctttcc aatccgcctc agagcgtaag gcccggccca cctcgtagag   7860
cacaagctgc gtgcgcaggt cgacgtcagt gcccgcagtg cccaggtggc gctggaccag   7920
cgcttccatg ccctgctgct ccagtgcatc cgtcacatcg tagaaggagt cctggtccgg   7980
gagcgccgcc agcgtctgga gggcggggat aagaaggcaa ggctgaggtt ggtggggagg   8040
tcaggagcct gagcatccca gagctggcac ccagtccttg gccacacctt gttgatgagg   8100
gtgaccgtgt acaccaacaa ctcagggtca gcgccattct tctcctccag gatggacacc   8160
agattggccc agggaggagc acctgccaca cagaaagtgg agcagtcatg ggggaacagg   8220
```

taggagagag ggctctgagc ggtgggggga gaaagggaca gtctctgacc ggtggtgctg 8280
gccacagagt tcactgcacg gatgaacagc ggtgcgttgt tttcggagta ttctacaaac 8340
accaacagca gcttcagggc tgtcttcacc accaagcggg actgaggaga gaggtcagta 8400
catatgagtg gggcttaggc cagacctgtg ccagctgttg ctggggaagg ggaagggctg 8460
ctggggctgg acccagagag aatctaggca gaatgaccct ggccccaggc ccaggcactg 8520
aagtgcctta taggcttaca gaggcctcag actcactccc ttccagctca ctttgcagaa 8580
caggaaactg aggcccagag agaagcaaca ggcaaagggt ataaggctga gtggagagcc 8640
acttaccagg ctggcacaca atgtgtacag ccactgaata gtgtcactgt gggccaccac 8700
ccccagcatt ccatccacaa agagcatcag ctggccgagc gctggggaaa cagggatggg 8760
cagagtcagc gagggtcgct ggagcagagg tcatgggaga ggggcggggc tgacctctaa 8820
ggatgtagct ctggtagttg tggtcggcag cagcacccac acggatcagg cagctcagcc 8880
cctctgaatg cacaaattca ggcaccaggt ctttgtcctc ctaga 8925

<210> 2078
<211> 8924
<212> DNA
<213> Homo sapiens

<400> 2078
gttggattag ctaagaaaat tttattttgc tccgtgcgtt caaggagctc acacacatgc 60
acatgcatat gcatgcacac acacacatac acacacactc acatgcatac acacacggct 120
aatactgctc aaggcatggc tcctgggcac agagttctgg ggccagaatt ctgctctggg 180
ccctcctcac tctgtcatct cctgcactgc agtccagggt ccagatagat ttccgggata 240
cagcaccttc acacctccag gccaggaccc ttgcttagtc ccagtgcctg caccaggtca 300
tctccgagcc cactcttcaa cgtccttctc actgcaggga cagagcaggg ttggaggggg 360
ttgatggggt tcaggtgggc agtgggattg tgggggggtta cttacaagac ttgcggttgc 420
cgcgggaacg cttgcgttcc ctagcagcta aggcacgagg actgctcttg gtcactgact 480
gcaccagaag gtccatgatc tcatctgatg tatcactggg taaactggag cctgggggtt 540
cttctgggga tgcagtggag ggccccactg tgggcatgat tggggagctg ctctggacca 600
tgcctgagga aggccagata gcaaagtcag gccaaggtgg cactggagcc cattccccac 660
agctgctatg ggcctcacct ctgctgcggc gattgtgtgt ggtgtcctca ggcctgctgg 720
tcagcagact cttcatacta gcatgactgt cagcatctcc ccggcctggc ccgctgctca 780
ctgctactgg gacagagggg ttgctggggg cttccccagc cacacctgag aacttctctg 840
tctggagaaa gaagaagggt gagctgggag gagcgaagga aaccaaggag gtggcagtca 900
agactaagac ctggaagggc acccacctcg gtgatcatgc gtccccgggt cttgttgcgc 960
tcacggtatg tggcctgctt ctgctgctgc tgtagcactc gttcccggca agtccgatac 1020
tcaagcgcaa attcccgcag cgtgtggcag aactgcatga tgcgcacttc acgggccgcc 1080
tgcggggtgt agcccaggta gagcaggaag gcatggaacc taggcaggtc agagtaggga 1140
gggacagtaa gtcctgctta ttgtctgagg gagggtggtg gccgtcctgc ctctcttggg 1200
tccatgcccc tacctattgc agacacggcg gtgcactatc cttagcatgg caacacggcg 1260
ggcacactgg tccaggaagt gggtgaggcg ggcacgcagg gctggggcca gctcatgctt 1320
ggccaagctc cgcaggctct cctcggctgc ccggctccgg cgctccagct gccccaggtt 1380
ctcagtcagc tgttcaaagt ccacctgaga aagcaagggg gtgcacatac tgtcccccca 1440
caccctgtag acaagacatg gcccgaggct gcttctgggc cagagtggcc agcttgggcc 1500
ctaaggacac agacatccaa atctcataga ctagtgcaag agacacaagt ccatctgatg 1560
tgaatgggga gcagaaggtt tactgggggga agtggcagtt aaacagaccc aaagactgag 1620
taggtgtggc caggccaata gaggaaagag catttctggc agagggcata gctcacaccc 1680
aggtggctgg agcaagccct ggcacagcag cccaaatggg gagaaggggg aggagccagg 1740
cccaggaagc agcgctcctc atgccttgtc cggccttggt tgattctggc aggtgctaac 1800
cttggcacag cgggtcaggg cagggatttc tgaatagagg tcagaggact caggccgggt 1860
ctggagcact agggagcaga gatggtgtag cagtgactgt cgacgcaccg tgtccttcac 1920
ctctgacacc ttctccaggt agctcagctc aaagccgctg ctctgaaagg acccttttctg 1980
agcctgggcc tggttggctc cagaaccctg actcccccta gtccccatgt actctcactc 2040
acctgggagc cattgaggaa gttgcccacc gctaggaggg tagccaggat gcagcggaag 2100
gtggcattct gtaccagctg ttccataccc actttcaggt caaacagtgg ctcagcaatt 2160
tcctggtatg ggagaccagg gactctcaga ctacatggtc atgatgctta cctgtcccta 2220
ctgactgtcc cactccaaga cccaggtacc cgctccatgc tgtcatagtc cagcttgaag 2280
gcccagagtt gtagacgagc agcgaggccg ccaatggagg caagagtcat caggaagttc 2340
tcggctgggc ccaggggtat gtcagggttg gccagctggg cttcctcaat cttctgccgc 2400
tcttcctccg tgggcatcat ggtcagtagc ttctgaggat gtagccagag cctgacatgg 2460

WO 99/50425 PCT/US99/06760

```
ccccctcaat gcaggcctga ggcctgaggc attggtcttg acccctcagt catctagggg  2520
aggccccagt gtctggggac tgccctgcag aaatgccaag cccatgccca ccaccagagg  2580
gacaggaaat gcccacctac caaaggagaa ggccagacct ccccccaaca cccatagctg  2640
ggtgacctca cctcaatgcc atccttgctg acagcaaact catcaaagtt gagcagagca  2700
gccttaatga catgcacagg tggcagtgtg gttaggccga tgttgatggc gttgctgcgc  2760
ttggggtcca gcactgtggt cattgtccgg cggccctctc cagctttctg catggttggg  2820
ggaagggcag tgtaagactg aggaaggggg cctgacgcgg tggctcacgc ctgtaatccc  2880
agcactttgg gaggccaagg cgggtggacc acgaggtcag gagatcgaga ccatcctggc  2940
taacatggtg aaaccccatc tctactaaaa atacaaaaaa aattagctgg gcgtggtggc  3000
gggcacctgt agtcccagct actcgggagg ctgaggcagg agaatggcgt gaacccggga  3060
ggcggagctt gcagtgagct gagatcacac cattgcacta catcctgggt gactgagcaa  3120
gactctgtct caaaaaaaaa aaaaaaaaaa aaaagactga ggaagggact agctgggaca  3180
gcaacctcag agggcactcc aaggccctcc tctagattgc caaatgatcc cacaactgac  3240
aaactggcaa cctggaatgt gtaagtcatg gggatgagct tagattcttt tgagacaggg  3300
cctggctcta ccatctaggc tggagtgcag tggtgccatc atcgcccact gcagcttatc  3360
ttctgggatt ttcctgcctc agcctcccaa gtagctggga ttacaggcgt gtaccaccat  3420
acccaactat ttttttttt aacatttttt tttccgcctc ccaggttcaa gcaattcttt  3480
tgcctcagcc tcccaagtag ctggtattgc aggcatgagc caccacgccc agctcatttt  3540
catattttta gtagagacgg ggtttcacca tgttggccag gctggtctca aactcctggc  3600
ctcaagtaat ctgcctgcct tggcctccca aagtgctggg attacagggg tgagccacca  3660
tgcccggcta attttttttt taacatttat ttatttttat ttatttagtt atttttgaga  3720
cgaagtcttg ctcttgtccc ccaggctgga gtgcaatggt gcgatctcga ctcactgcaa  3780
cctctacctc ccgggttcaa gtgattctcc tgcctcagcc tcccgagtag ctgggattac  3840
aggtgcccgc caccacgctt ggctaatttt gtgtttttag tagagacggg gttttgctaa  3900
tttgaccagg ctggtctcga actcctgacc tcaaatgatc cacctgcctc ggcctcccaa  3960
ggtcctggga ttacaggcat gagccactac acccagacca acttttagta gagataatgt  4020
ctcactatgt tgcacaggct ggtctcaaac tcttggatta caggtgtgag ccaccatgcc  4080
cggccacatt tagattctag ttggggcact gctgatccct tgttaggaga ccttggacaa  4140
tttcctactc ctttctttgc cttggtttcc ccatgtggga agtgagtgac tagctccaac  4200
aggtcagatc cttaagctct gattccctcc tgcctccctt ggggctacct tgcagatgag  4260
tggatttacc ttggagggca gcacctcttt ggcacgagac tcaaagaggt gttccagtcg  4320
ggccgtgtcc actgagacag ggtccagtga agcccagagg gtggcgcagg gcccaaagcg  4380
gcttgcagag actccatggc ccccagccag cttcagctca cgccagaaaa gttttactgt  4440
cttcctctta gtggggaggg ctgagctgtc aggcactgaa tggggaagag gggcagccag  4500
aggtagaggt ggaggtggtg ggaaggggcc tttgatgggt gggggaggtg gaagtggggg  4560
agggggtgtg tactcccgag agcaggggca gtgggggtga gggagctggg atgtctttcc  4620
cagcctccac agactctaca ttcagcatgt cctggtcttc atcctccccc agatctgaaa  4680
agtccaggtc cccaatagag agcctgggtg cacgggtagg gagctcccag atgggctcag  4740
ccttggggct tgctggtatc agtggctcct tgggctctgg tgcaaggctt cgctgggccc  4800
ggagcaggac acaggggca gggctctggg gtgttctggc tgcaggggct gtctctgggg  4860
agtcccagag ttgccgggca tctaaagaaa gggaaggagc tgtcagtgcc atgccccctg  4920
tggggcaaca aagcaacagg caggctctgc ctgctcaccc acctactcac ctgggtgtcc  4980
acccgcctca ttgggcatgg ccccggcaag tgtctctgcc cggccctggg ccagcgcaac  5040
ctgcttctct gtttctgctg ccgccacatt ctccaggaac cgggctctga gggaaggtgc  5100
ttgtcactga cagcgtctga cacaccccag cccaggtgta catgccttgc tgagcccctg  5160
gacaccaccc ccaattgcag gcacgcacag acacacaggg aacagtccat gcgctgagca  5220
gaccagaacc acacccccc caaggccagc ccctcttcag tcctccacat ctggggagga  5280
ttactaccaa cccagcattc ccaggtgaaa acacagggag aggatctact taacatctaa  5340
cttgcaacct cgttcatgtt cactgtcctg gttttttttt ggttggtttt ttttttagag  5400
acagggtctc actctgtcag tcacccaggc tggagtacag tggtgtgatc atagctcact  5460
gcagcctcac tctcctgggc ttgaccctca gcctcccaag tagctgggac tacagacatg  5520
tgccaccacg tccagctgat tttttaattt ttttgaggag acagggtctc actgtgttgt  5580
tcaggctggc cttgaattcc tggcctcaag cagtcctccc acctcagcct cctgaagtgc  5640
tgagattaca ggtgtgaatg atgcacccag ccaaatttta aaaaatttct ttgtagagat  5700
gaggtcttac tgtgttgccc aggctggtgt cttgagtcta gacaaggact cttagagcag  5760
gggaagggga tagctgtccc aatgggcata tcaggctgtc cctcccttgg catgtctggt  5820
agcttctggg agcctatgcc caggaaaggg cctggtaaac aggccaggtg cggtggctca  5880
cgcttgtaat cccagcactt tgggaggcag aggtgggtgg attacttgaa gtcaggagtt  5940
cgagaccagc ctggccaaca tggtgaaacc ctgtctctac taaaaataca aaaattaccc  6000
aggtatcctg gtgcaggcct ataatcccag ctacttggga ggctgaggca ggagaattgc  6060
ttgaacctgg gaggcagagg ttgcagtgtg ctgagatcac accactgcac tccagccttg  6120
```

gagaccgagc aagactctgt ctcaaaaaaa aaaaaaacaa aaaaaaaacg gatgtggtaa 6180
acagtggacc ctcagtttat gctgaaataa tgggtgcaat ccagtgtttc ttttctggcc 6240
cctccagcct ctgtcagctc tcagtccctg cctttccctc agccttaggt tacccctcca 6300
cccccacacc acacaccaca cagcacccta ggtcccctcc ctgctcgctt ctgagctgaa 6360
gacttggcag aatgagcccc aggttgggtg tccacatccc catctctggc tgctaaggtg 6420
ttgctattga agcacaggga ccactgtgac cccagtgaat tggttcccag tgcttagcct 6480
ttgggttacc gaggaggcat atgtctggga gaggataggc ctgagtcccc cagctttggt 6540
tgcatcaggc acgtgaaacc cctgctgggg gaagcaatgc tgaagccctg agcacatggc 6600
aggcctggca ggccggcctc tgtacttact ccagcctggc ctgcccagga ggggactggg 6660
ggacgggtgg gctctcaggg gccctgggta ggggggatga gaggaagaga tggtaactgt 6720
ggtgtcagct ccatggttgc tcatacccac acagagctag gcagtgatat tggggttcct 6780
tcccagccgc agtgggaagt gggggaaggt atgacacgag gaaactggaa gtggagggga 6840
gagactgacg tggagcagga cagggtgctg gaagagacag aggcagcaga acaagggagt 6900
gacagatagt gggcgggaga catgacaaga ggcaaagaca ggcagaacgt cggaggagac 6960
aaggaaacca caggaggagg agatccagtc agagccgaac cccacccgct ggcagtcact 7020
taccaacgga agcagtttgg tgaagtctgg aaagagagag agagaaagca cgcgtttggg 7080
cagaggaggc tgagtgccca tggaggggcg caaagcggag ggacaatggg agagaggact 7140
ccagggtggc ctctgtctcc ctacttactt gtagatgctc ctctcgctgg aggtgtcagc 7200
tgagggtgcc acagagatgg taggaaaaag gttcactgaa gcttggagac cggagggagg 7260
gcccacaggg ctggaggcgg ggcctgtcag cagggcgggg ccggtggaag aggtggggcc 7320
taccggtgag gcggggcctg tggggctgaa agcaggggct gtcagtgggg cggggcctga 7380
gaagctggag gcgggcctgt cagtggggtg gggcctgcag ggcggaaggt ggggcatgtc 7440
tgcagggcac gcccagtgga ggaggtgggt ggctgtctgt tggggcgggc ctgagggggt 7500
tggggtcagg gcctgtcagc tcactgggcc atgcctagta gatccaccct ttcccatcta 7560
cagatgctcg tacttaccca ggttccgggg cacgcgcggg gcagcccccg ccttccagag 7620
aacggcggct cctcttgccc tcctcagaag aaggctttcg tcgttcccgc cgcccaccag 7680
cgcctggggc ttcttcgatg tctccatcct ccaatttcag ggcgttctag cagaggcgga 7740
ccaggatgta agaaagtggt taacgtgtat gcaggtgggg tggggcgctg gggactgcgc 7800
ttctctcttc cctctttcca atccgcctca gagcgtaagg cccggcccac ctcgtagagc 7860
acaagctgcg tgcgcaggtc gacgtcagtg cccgcagtgc ccaggtggcg ctggaccagc 7920
gcttccatgc cctgctgctc cagtgcatcc gtcacatcgt agaaggagtc ctggtccggg 7980
agcgccgcca gcgtctggag ggcggggata agaaggcaag gctgaggttg gtggggaggt 8040
caggagcctg agcatcccag agctggcacc cagtccttgg ccacaccttg ttgatgaggg 8100
tgaccgtgta caccaacaac tcagggtcag cgccattctt ctcctccagg atggacacca 8160
gattggccca gggaggagca cctgccacac agaaagtgga gcagtcatgg gggaacaggt 8220
aggagagagg gctctgagcg gtgggggggag aaagggacag tctctgaccg gtggtgctgg 8280
ccacagagtt cactgcacgg atgaacagcg gtgcgttgtt ttcggagtat tctacaaaca 8340
ccaacagcag cttcagggct gtcttcacca ccaagcggga ctgaggagag aggtcagtac 8400
atatgagtgg ggcttaggcc agacctgtgc cagctgttgc tggggaaggg gaagggctgc 8460
tggggctgga cccagagaga atctaggcag aatgaccctg gccccaggcc caggcactga 8520
agtgccttat aggcttacag aggcctcaga ctcactccct tccagctcac tttgcagaac 8580
aggaaactga ggcccagaga gaagcaacag gcaaagggta taaggctgag tggagagcca 8640
cttaccaggc tggcacacaa tgtgtacagc cactgaatag tgtcactgtg ggccaccacc 8700
cccagcattc catccacaaa gagcatcagc tggccgagcg ctggggaaac agggatgggc 8760
agagtcagcg agggtcgctg gagcagaggt catgggagag gggcggggct gacctctaag 8820
gatgtagctc tggtagttgt ggtcggcagc agcacccaca cggatcaggc agctcagccc 8880
ctctgaatgc acaaattcag gcaccaggtc tttgtcctcc taga 8924

<210> 2079
<211> 3357
<212> DNA
<213> Homo sapiens

<400> 2079
ccggggtccc agttctaaag tccccacgca cccacccgga ctcagaatct cctcagacgc 60
cgagatgcgg gtcacggcgc cccgaaccct cctcctgctg ctctgggggg cagtggccct 120
gaccgagacc tgggccggtg agtgcggggt cgggagggaa atggcctctg tggggaggag 180
agaggggacc gcaggcgggg gcgcaggacc cggggagccg cgccgggagg agggtcgggc 240
gggtctcagc ccctcctcgc ccccaggctc ccactccatg aggtatttct acaccgccat 300
gtcccggccc ggccgcgggg agccccgctt catcaccgtg ggctacgtgg acgacacgct 360

gttcgtgagg ttcgacagcg acgccacgag tccgaggaag gagccgcggg cgccatggat 420
agagcaggag gggccggagt attgggaccg ggagacacag atctccaaga ccaacacaca 480
gacttaccga gagaacctgc gcaccgcgct ccgctactac aaccagagcg aggccggtga 540
gtgaccccgg cccggggcgc aggtcacgac tccccatccc ccacgtacgg cccgggtcgc 600
cccgagtctc cgggtccgag atccgccccc gaggccgcgg gacccgccca gaccctcgac 660
cggcgagagc cccaggcgcg tttacccggt ttcattttca gttgaggcca aaatccccgc 720
gggttggtcg gggcggggcg gggctcgggg gacggggctg accgcggggc cggggccagg 780
gtctcacatc atccagagga tgtacggctg cgacgtgggg ccggacgggc gcctcctccg 840
cgggtatgac caggacgcct acgacggcaa ggattacatc gccctgaacg aggacctgag 900
ctcctggacc gcggcggaca ccgcggctca gatcacccag cgcaagtggg aggcggcccg 960
tgtggcggag cagctgagag cctacctgga gggcctgtgc gtggagtcgc tccgcagata 1020
cctggagaac gggaaggaga cgctgcagcg cgcgggtacc aggggcagtg gggagccttc 1080
cccatctcct ataggtcgcc ggggatggcc tcccacgaga agaggaggaa aatgggatca 1140
gcgctagaat gtcgccctcc cttgaatgga gaatggcatg agttttcctg agtttcctct 1200
gagggccccc tcttctctct aggacaatta agggatgacg tctctgagga aatggagggg 1260
aagacagtcc ctagaatact gatcaggggt ccccctttgac ccctgcagca gccttgggaa 1320
ccgtgacttt tcctctcagg ccttgttctc tgcctcacac tcagtgtgtt tggggctctg 1380
attccagcac ttctgagtca ctttacctcc actcagatca ggagcagaag tccctgttcc 1440
ccgctcagag actcgaactt tccaatgaat aggagattat cccaggtgcc tgcgtccagg 1500
ctggtgtctg ggttctgtgc cccttcccca ccccaggtgt cctgtccatt ctcaggctgg 1560
tcacatgggt ggtcctaggg tgtcccatga gagatgcaaa gcgcctgaat tttctgactc 1620
ttcccatcag acccccccaaa gacacatgtg acccaccacc ccatctctga ccatgaggtc 1680
accctgaggt gctgggccct gggcttctac cctgcggaga tcacactgac ctggcagcgg 1740
gatggcgagg accaaactca ggacaccgag cttgtggaga ccagaccagc aggagataga 1800
accttccaga agtgggcagc tgtggtggtg ccttctggag aagagcagag atacacatgc 1860
catgtacagc atgaggggct gccgaagccc ctcaccctga gatggggtaa ggaggggat 1920
gaggggtcat atctcttctc agggaaagca ggagcccttc agcagggtca gggcccctca 1980
tcttcccttc ctttcccaga gccgtcttcc cagtccaccg tccccatcgt gggcattgtt 2040
gctggcctgg ctgtcctagc agttgtggtc atcggagctg tggtcgctgc tgtgatgtgt 2100
aggaggaaga gctcaggtag ggaaggggtg aggggtgggg tctgggtttt cttgtcccac 2160
tgggggtttc aagccccagg tagaagtgtt ccctgcctca ttactgggaa gcagcatcca 2220
cacaggggct aacgcagcct gggaccctgt gtgccagcac ttactctttt gtgcagcaca 2280
tgtgacaatg aaggacggat gtatcacctt ggtggttgtg gtgttggggt cctgattcca 2340
gcattcatga gtcaggggaa ggtccctgct aaggacagac cttaggaggg cagttggtcc 2400
aggacccaca cttgctttcc tcgtgtttcc tgatcctgcc ttgggtctgt agtcatactt 2460
ctggaaattc cttttgggtc caagacgagg aggttcctct aagatctcat ggccctgctt 2520
cctcccagtc ccctcacagg gcattttctt cccacaggtg gaaaaggagg gagctactct 2580
caggctgcgt gtaagtgatg ggggcgggag tgtggaggag ctcacccacc ccataattcc 2640
tcctgtccca cgtctcctgc gggctctgac caggtcctgt ttttgttcta ctccaggcag 2700
cgacagtgcc cagggctctg atgtgtctct cacagcttga aaaggtgaga ttcttggggt 2760
ctagagtggg tggggtggca ggtctggggg tgggtggggc agtggggaaa ggcctgggta 2820
atggagattc tttgattggg atgtttcgcg tgtgtggtgg gctgtttaga gtgtcatcac 2880
ttaccatgac taaccagaat ttgttcatga ctgttgtttt ctgtagcctg agacagctgt 2940
cttgtgaggg actgagatgc aggatttctt cacgcctccc ctttgtgact tcaagagcct 3000
ctggcatctc tttctgcaaa ggcacctgaa tgtgtctgcg tccctgttag cataatgtga 3060
ggaggtggag agacagccca cccccgtgtc caccgtgacc cctgttccca tgctgacttg 3120
tgtttcctcc ccagtcatct ttcctgttcc agagaggtgg ggctggatgt ctccatctct 3180
gtctcaactt tatgtgcact gagctgcaac ttcttacttc cctactgaaa ataagaatct 3240
gaatataaat ttgttttctc aaatatttgc tatgagaggt tgatggatta attaaataag 3300
tcaattcctg gaatttgaga gagcaaataa agacctgaga accttccaga atctgca 3357

<210> 2080
<211> 3357
<212> DNA
<213> Homo sapiens

<400> 2080
ccgcggtccc agttctaaag tccccacgca cccacccgga ctcagagtct cctcagacgc 60
cgagatgctg gtcatggcgc cccgaaccgt cctcctgctg ctctcggcgg ccctggccct 120
gaccgagacc tgggccggtg agtgcgggtc gggagggaaa tggcctctgc cgggaggagc 180

gaggggaccg caggcggggg cgcaggacct gaggagccgc gccgggagga gggtcgggcg 240
ggtctcagcc cctcctcacc cccaggctcc cactccatga ggtatttcta cacctccgtg 300
tcccggcccg gccgcgggga gccccgcttc atctcagtgg gctacgtgga cgacacccag 360
ttcgtgaggt tcgacagcga cgccgcgagt ccgagagagg agccgcgggc gccgtggata 420
gagcaggagg ggccggagta ttgggaccgg aacacacaga tctacaaggc ccaggcacag 480
actgaccgag agagcctgcg gaacctgcgc ggctactaca accagagcga ggccggtgag 540
tgaccccggc ccggggcgca ggtcacgact ccccatcccc cacgtacggc ccgggtcgcc 600
ccgagtctcc gggtccgaga tccgcctccc tgaggccgcg ggacccgccc agaccctcga 660
ccggcgagag ccccaggcgc gtttacccgg tttcattttc agttgaggcc aaaatccccg 720
cgggttggtc ggggcggggc ggggctcggg ggactgggct gaccgcgggg ccggggccag 780
ggtctcacac cctccagagc atgtacggct gcgacgtggg gccggacggg cgcctcctcc 840
gcgggcatga ccagtacgcc tacgacggca aggattacat cgccctgaac gaggacctgc 900
gctcctggac cgccgcggac acggcggctc agatcaccca gcgcaagtgg gaggcggccc 960
gtgaggcgga gcagcggaga gcctacctgg agggcgagtg cgtggagtgg ctccgcagat 1020
acctggagaa cgggaaggac aagctggagc gcgctggtac caggggcagt ggggagcctt 1080
ccccatctcc tataggtcgc cggggatggc ctcccacgag aagaggagga aaatgggatc 1140
agcgctagaa tgtcgccctc cgttgaatgg agaatggcat gagttttcct gagtttcctc 1200
tgagggcccc ctcttctctc tagacaatta aggaatgacg tctctgagga aatggagggg 1260
aagacagtcc ctagaatact gatcaggggt ccccctttgac ccctgcagca gccttgggaa 1320
ccgtgacttt tcctctcagg ccttgttctc tgcctcacac tcagtgtgtt tggggctctg 1380
attccagcac ttctgagtca ctttacctcc actcagatca ggagcagaag tccctgttcc 1440
ccgctcagag actcgaactt tccaatgaat aggagattat cccaggtgcc tgcgtccagg 1500
ctggtgtctg ggttctgtgc cccttccccа ccccaggtgt cctgtccatt ctcaggctgg 1560
tcacatgggt ggtcctaggg tgtcccatga aagatgcaaa gcgcctgaat tttctgactc 1620
ttcccatcag acccccccaaa gacacacgtg acccaccacc ccatctctga ccatgaggcc 1680
accctgaggt gctgggccct gggtttctac cctgcggaga tcacactgac ctggcagcgg 1740
gatggcgagg accaaactca ggacactgag cttgtggaga ccagaccagc aggagataga 1800
accttccaga agtgggcagc tgtggtggtg ccttctggag aagagcagag atacacatgc 1860
catgtacagc atgaggggct gccgaagccc ctcaccctga gatggggtaa ggaggggat 1920
gaggggtcat atctcttctc agggaaagca ggagcccttc agcagggtca gggcccctca 1980
tcttcccctc ctttcccaga gccgtcttcc cagtccaccg tccccatcgt gggcattgtt 2040
gctggcctgg ctgtcctagc agttgtggtc atcggagctg tggtcgctgc tgtgatgtgt 2100
aggaggaaga gttcaggtag ggaaggggtg aggggtgggg tctgggtttt cttgtcccac 2160
tgggggtttc aagccccagg tagaagtgtt ccctgcctca ttactgggaa gcagcatgca 2220
cacaggggct aacgcagcct gggaccctgt gtgccagcac ttactctttt gtgcagcaca 2280
tgtgacaatg aaggatggat gtatcacctt gatggttgtg gtgttggggt cctgattcca 2340
gcattcatga gtcaggggaa ggtccctgct aaggacagac cttaggaggg cagttggtcc 2400
aggacccaca cttgctttcc tcgtgtttcc tgatcctgcc ctgggtctgt agtcatactt 2460
ctggaaattc cttttgggtc caagactagg aggttcctct aagatctcat ggccctgctt 2520
cctcccagtg ccctcacagg acattttctt cccacaggtg gaaaaggagg gagctactct 2580
caggctgcgt gtaagtggtg ggggtgggag tgtggaggag ctcacccacc ccataattcc 2640
tcctgtccca cgtctcctgc gggctctgac caggtcctgt ttttgttcta ctccaggcag 2700
cgacagtgcc cagggctctg atgtgtctct cacagcttga aaaggtgaga ttcttggggt 2760
ctagagtggg tggggtggcg ggtctggggg tgggtggggc agaggggaaa ggcctgggta 2820
atggggattc tttgattggg atgtttcgcg tgtgtggtgg gctgtttaga gtgtcatcgc 2880
ttaccatgac taaccagaat ttgttcatga ctgttgtttt ctgtagcctg agacagctgt 2940
cttgtgaggg actgagatgc aggatttctt cacgcctccc ctttgtgact tcaagagcct 3000
ctggcatctc tttctgcaaa ggcacctgaa tgtgtctgcg tccctgttag cataatgtga 3060
ggaggtggag agacagccca cccttgtgtc cactgtgacc cctgttccca tgctgacctg 3120
tgtttcctcc ccagtcatct ttcttgttcc agagaggtgg ggctggatgt ctccatctct 3180
gtctcaactt tacgtgcact gagctgcaac ttcttacttc cctactgaaa ataagaatct 3240
gaatataaat ttgttttctc aaatatttgc tatgagaggt tgatggatta attaaataag 3300
tcaattcctg gaatttgaga gagcaaataa agacctgaga accttccaga atctgca 3357

<210> 2081
<211> 1098
<212> DNA
<213> Homo sapiens

<400> 2081

ctgatcctgc gccatgatcc tggatggctg cgccccactt atgagcccat tggattgggt 60
ggtgctcggg gcaccaagag agggtgcccc acacaccacg tgtattgtgg tatacaagag 120
ggcatcgagc ccctcagtgg gagatatttt gccaactgcc atgtggaaga ggtgcctcca 180
gctgcccgaa acgaccgggc agcccatcgg ctatgggagg ccagcaagag gctggcaggg 240
cttgggcctg gggagtatgc tgaacccgat gaagaccccc agtctgagga ctcagaggcc 300
ccatcttgtc taagcacccc ccaccctgag gagcccacag tttctcaacc ttaccccagc 360
cctcagagct caccagattt gtctaagatg acgcaccgaa ttcaggctaa agttgagcct 420
gagatccagc tctcctaacc ctcaggccag gatgcttgcc atggcacttc atggtccttg 480
aaaacctcgg atgtgtgcga ggccatgccc tggacactga cgggtttgtg atcttgacct 540
ccgtggttac tttctggggc cccaagctgt gccctggaca tctcttttcc tggttgaagg 600
aataatgggt gattatttct tcctgagagt gacagtaacc ccagatggag agataggggt 660
atgctagaca ctgtgcttct cggaaatttg gatgtagtat tttcaggccc cacccttatt 720
gattctgatc agctctggag cagaggcagg gagtttgcaa tgtgatgcac tgccaacatt 780
gagaattagt gaactgatcc ctttgcaacc gtctagctag gtagttaaat tacccccatg 840
ttaatgaagc ggaattaggc tcccgagcta agggactcgc ctagggtctc acagtgagta 900
ggaggagggc ctgggatctg aacccaaggg tctgaggcca gggccgactg ccgtaagatg 960
ggtgctgaga agtgagtcag ggcagggcag ctggtatcga ggtgccccat gggagtaagg 1020
ggacgccttc cgggcggatg cagggctggg gtcatctgta tctgaagccc ctcggaataa 1080
agcgcgttga ccgccgaa 1098

<210> 2082
<211> 255
<212> DNA
<213> Homo sapiens

<400> 2082
gggtcgcgca gccctggagg gcaggtgcct gtatggggag gggccctgaa acagaggtcg 60
tttctcggca cagtcagacc cgttaattcc aagcaggctg gggcttgttg gggattaccg 120
gcactgcccg cccaggagac gcggatgcgg cctctacagg ttgggaaacc cggttctggg 180
cagtgcagtt tgggattgca aaatgctgca agttccagaa tttctatcta ggtggggcat 240
ggggactgcg gtact 255

<210> 2083
<211> 984
<212> DNA
<213> Homo sapiens

<400> 2083
cctctctgcc cccatttcca ctcctgctct tgggacacag gagactggtt agatgagagt 60
agaaagttta tttttgaaca cccaggtgtg gggtggctgg gcgagaccat ctgatggctt 120
tgggagccag gccgcagggt ttagcttgga tctgttgagt aggagaccct taaacatggc 180
caccctgagc taagagctgg tcttggattt tgctttcttt tggattaacc gagtattttg 240
tgggattcca tttgatccct taactggctg accagctata actcctggtt atgttgtttt 300
agtgttgctc caggtgtcgt tggaggagaa gttgaaggta caaggagttt gcaggaggga 360
aggtggcagt taatgagcct tcctggtggg accggatggt gagggcaggg gcatctggcc 420
cagcgtggac tcgggccata gatgggaagt ggtcatttgg aggtcaccat ctctctgaca 480
ccctgaccat agcacctgca cccctgtgct gagctgcagg tccccggcac cagcgtctgt 540
gcagctcagg tgttgctgag ccgtggcctc cgcagctctc catcaggatt tctcaagctt 600
cattatgaat tatctctgtg tgagctcaca acggtgactg cagagtccca ggtcatctct 660
cagatcttct gaatcaaaca tatggtctgc agttgccgcg catgtctttg gccgatttc 720
tgacaatcaa agtgaagaag ttctgagcta cgggaagttg ggttgaaggc atgatgggga 780
aaacatgatt agttgacagc ttttcccaga gagtttttag acaaactcaa ccttggtaac 840
cttctcagtg ggcttatgat aagaaccttc aatgtgccaa aaaataaaaa aagcagcact 900
ccaggtagtt aatctttgtt taaaaaaccc ttccccccac ccagtcctgc aaacaaacaa 960
acaaacaaaa aaaggagaaa aaaa 984

<210> 2084
<211> 984

<212> DNA
<213> Homo sapiens

<400> 2084
cctctctgcc cccatttcca ctcctgctct tgggacacag gagactggtt agatgagagt 60
agaaagttta tttttgaaca cccaggtgtg gggtggctgg gcgagaccat ctgatggctt 120
tgggagccag gccgcagggt ttagcttgga tctgttgagt aggagaccct taaacatggc 180
caccctgagc taagagctgg tcttggattt tgctttcttt tggattaacc gagtattttg 240
tgggattcca tttgatccct taactggctg accagctata actcctggtt atgttgtttt 300
agtgttgctc caggtgtcgt tggaggagaa gttgaaggta caaggagttt gcaggaggga 360
aggtggcagt taatgagcct tcctggtggg accggatggt gagggcaggg gcatctggcc 420
cagcgtggac tcgggccata gatgggaagt ggtcatttgg aggtcaccat ctctctgaca 480
ccctgaccat agcacctgca cccctgtgct gagctgcagg tccccggcac cagcgtctgt 540
gcagctcagg tgttgctgag ccgtggcctc cgcagctctc catcaggatt tctcaagctt 600
cattatgaat tatctctgtg tgagctcaca acggtgactg cagagtccca ggtcatctct 660
cagatcttct gaatcaaaca tatggtctgc agttgccgcg catgtctttg gccgatttc 720
tgacaatcaa agtgaagaag ttctgagcta cgggaagttg ggttgaaggc atgatgggga 780
aaacatgatt agttgacagc ttttcccaga gagtttttag acaaactcaa ccttggtaac 840
cttctcagtg ggcttatgat aagaaccttc aatgtgccaa aaaataaaaa aagcagcact 900
ccaggtagtt aatctttgtt taaaaaaccc ttccccccac ccagtcctgc aaacaaacaa 960
acaaacaaaa aaaggagaaa aaaa 984

<210> 2085
<211> 9545
<212> DNA
<213> Homo sapiens

<400> 2085
aggtagaaga gagaccagaa aaagatttta ctgagaaggt aaggaatcgt tcataaacct 60
agagggtccc aaaagttgtg gatgaaattg ataagaaaat atgttgcttg gttttttta 120
ataaggatgt tccccagcga gggaactgga ctagaaagcg gcccacctaa cctggtatca 180
ccttcccgga ggtaggccac cgggagtcct gtccggtgtg cgttagatcc tgtagagcag 240
ggaggcgttt ataatgggcc ccaccatgga gtttagggtt aatccagcta atcgcagagc 300
atccaggagg tgcctggaaa tgatcccctc cttacagttt actataagcc catgaagagt 360
ttccaatttg gaaatggaat taaagtaaca gtcctgtgat gttagattta tatgcagttt 420
tggttttgtc tgaaatcgca tctgtgttag tccgttctca cactgccata aagaacttcc 480
ctgagactgg gtaatttaca aagaaaagag ctttaattga ctcacagttc cgcatggctg 540
gggagacctc aggaaactta caatcatggt gaaaagggaa gcaggcacct tcttcacaag 600
gcgacaggag agagaacatg tgaaggagga actgtcaaac acaaagccat cagatctcct 660
gggagcccac tcactatcac gagaacagca tgggggaaac tgcccccgtg atccagtctc 720
ctcccaccag ggccgtccct catcttgtgg ggattatggg gattacaatt ccagatgaga 780
tttgggtggg gacacagagc taaaccatat cagcatgtga tcctctcaac gttccagggg 840
tctcgtaaca tgccgggcct gtctgcagcc acgctggcct ctctgggtgg gacttcctct 900
cggagaggca gcggagacac ctccatctcc atcgacaccg aggcatccat cagggaaatc 960
aaggtgagat gctctcttct tactgacaac ttgagagaac cttttgtaaa aatcagtctt 1020
tagattaaaa aaaaaaaagt taattcataa agttctggat ctttcttctt ggtcctctct 1080
ccctcacctc ccctaaaata cggtgttctc ctaacatcaa gacccagctc agatagtgtc 1140
tcctgcagga atctgatcct acccactgac cccccagcag ggcggaccgt gtgccggccc 1200
cctgcgcccc tcagcacccg gggaatacct tagtgagagc acttggcacg ttgtgttgat 1260
gcacttggtc gtctctgtat gcttggtctg catagacatt cagtccacaa gtttggacac 1320
cagacggctt tacctacttt cacacaaccc ctccccacta agtatgttcc ccttcggcct 1380
agaacttgcc ctttcctttc tctttgtaat gtgcctttag tagccctcat ctttgtattt 1440
taatgatttt ttttatccca ctgtagtgta ggtattattc tctgctctat cctcagcacc 1500
caggacagtg ccaggcattt ggtagtattc tgtgtgtgaa agagaaacac ggtgctattt 1560
gttaaagtaa ctagggacag tgcatctgaa aacctgaaga ctggaagggc aggtgaggtg 1620
actagacctg tgtcctccag ggagcagaac caagacagaa gcagctggaa ggagccagaa 1680
ctgactcaga ttctgaattt tctagtgctt taaactaggt ttaaaaggga agcaacttcc 1740
actggggatg tctgagcagc tggatggccg tttgccaggg aggacggaga gggatttaag 1800
catccaccag agtttggcca gggttacctt gaagatgctt ccaacaccta tgttttataa 1860
gtttacaaaa ccagaagagc catttcccat gtgccacccc tgggccacct gcagctcctt 1920

09505082 - 09HJ04

gttgcttccc ttttttttte ctttttcttt tcttttcttt ctttcttttt ttttttttte 1980
ttttttttte ggagacaaga gttttgcttt tgtcacccat gctggagttc aatggcacga 2040
tctcggctca ctgcaacctc cacctcccag gttcaagtga ttctccagcc tcagcctcct 2100
gagtagctgg gattacaggc gcccgccacc atgcccggct aacttttgta tttttagtgg 2160
agacggggtt tcgccatgtt ggccaggctg gtcttgaact cctgacctca ggtgatccac 2220
ccactcggcc tcccaaagtg ctgggattcc aggcgtgagc cgctgcgcct ggcctgttgt 2280
ttccgtttct acagcagagc agcagagttg gcggcagtcc tgatgtttct ctgcccttag 2340
gttgcgcgtg ccgttcattt gttcaggtac ttactgagag gctggctggt gccagatgct 2400
gtccccggca ccaggaattt ggcaaagtag agacttggag ctccataaat gcagggaaaa 2460
agtgctactg atttttgcct ctagcatctt actgtacatt gcacagagta ggaactccta 2520
gtgcttgaat gaattactaa ataggagttg aaataacctg taccgttttc cgaggctcta 2580
ttttgtctgt tttttaaact gtgtaaaatc atatgagata cactaaaatt gtataaaatc 2640
atgtaaaaat atcatatggg atacacctga actttaatct ttaaatattg aagtttattt 2700
tcccttaacg cttaataaaa taaaaaagaa aattgggtgc tcagactacc caaatagaaa 2760
ctaccctgaa gtataaaaga tttagggaat cacctgtttt cccttgacat catctgcctt 2820
ttttgccatt tcccccagga actcaatgag ttaaaggacc agattcagga tgtagaaggc 2880
aaatacatgc agggattgaa agagatgaag gtaccaattc acagacgtgt ggtctcacga 2940
tattaaccca acttaactta aaaaaaaaaa caacatccta aagaagaaat tcaaagtgca 3000
tgcttactgt aaataggctc cagggtgtag aagaactcac aatggcagga gtgccggcat 3060
gggtgtacac tcaccatttt cccaaatgca ttgtttgaac caagattgaa aatgtaactg 3120
cccagtagaa aaggttacta acatactccc tgatgcatgc cttagactta ccatccttcc 3180
cccaggctta aaaccagttt ctcatttccc ataggcgtgt gccagacact tgaagaaggt 3240
tcttggtttt cttcactttt tgtagtagtt gtatacaaaa atgcttcagt tgatttgctt 3300
ctcaaaatat ctgatgtcta ctaataaggc cgtcctcaca tgccacactt ttgaaacatc 3360
ccaattattt gcaccctgta aaatgctact aattgaagta aagactgact atggcattgg 3420
ctttcttgga gcgtgtgcac actgctttta gagtgtgcag tgacttcatt gcaccagcca 3480
ggagatgtgg ttgccctgtt ccttgacagt aaggtgggca atcagtgact gtcttcctta 3540
ggcagcagcg gatcatggat ctggaagtgg gtggcgtatc tgttacttcc ttttcagccc 3600
cctagaaagt acctgcaaga tcatttgaat ttaatatcaa agggcaccag acagaggagg 3660
tgacatcgat catgactaat tcactatctt catatctgcc acctttcctg aaaggggaa 3720
aaataagact ctggctttca attcatgcga aaaggagcca cttggccagg cgtggtggct 3780
cacgcctgta attccacact ttgggaggcc gaggtgggtg gatcaccgga ggtcaggagt 3840
ttgagaccag cctggccaac atggtgagac cccgtctcta ctaaaaatat aaaaattagc 3900
caggtgtggt ggtgcgcacc tgtaatccca gctacttggg aggctgagtc aggagaatca 3960
cttgaacccg gcaggtggag gctgcagtga gccgagatcg tgccactgca ctccagcctg 4020
ggtgacagag cgagacactg tttcaaaaaa gaaaaaatgc tgctggggag ccactgaacc 4080
aaccggagac ccgctggtcc cacgtgaagc agctgtcctg gtgtggaggt acagagctag 4140
accagcactg gtccctccag ccccctggta gcctctgctg cacctgaact ggcagctctt 4200
gccgctgcct ttagctctgc atgtatgcgc cctgaaggtt ctgcctctct gttttggaat 4260
cgccttcccc tcctcatgtt tggggacctg caagggtgtg aggcacgtga gggcatcgcc 4320
atgcgtattt tacaggcctc tttctctgga ctgtccttca aagggaatga cctttgtctt 4380
tccaggacct acccagtgag atctgcctgc cattttccta tgagtcaaaa atctgaactc 4440
actactgctc ctttcctggt tcataagcca gagtagggct ggttggcagt cactggcttg 4500
tggccctatg taattatctc agccatcaca cactggctct ttcacaaggg ctggtcacac 4560
gcctcgagtg attcttcaga aatctgttga acagcctgac acccagccct aggacgccgt 4620
gctgggggga ttccccagct actgagtggg gccagagact ctactgcctc tgtgaccaca 4680
tccctttcca tactggtatc tcgtttgttc taatgagtgt gtccattgct tttaatagtg 4740
aattttctga gcaatgagaa tttgaccaaa ttgaaaaggg ggatttccat gcatttgaaa 4800
ttgccatgtg tttcttcttc tgatccattt gctctaagaa atatagtcta agtttaggac 4860
tgagggtttt tttttaacag aatactgaat gattctttgt tttgattttt ttattgcaat 4920
ttcaaaaata tgacctgctt tccacaggac tctctagcag aagttgaaga gaaatataag 4980
aaggctatgg tttccaatgc tcagctagac aatgaaaaga caaacttcat gtaccaggtt 5040
gataccctaa aagatatgtt gctggagctt gaagaacagc tggctgaatc taggcggcag 5100
tacgaagaga aaaacaaagt aagcattagt atgatacaga atgttaacaa taggctgcgt 5160
gcagtggccc atgcctgtaa ttctggtact ttgggaggcc aaggtgggag gattacttga 5220
gcccaagagt tcgagaccag cctgggcaac atggcgagac atcatttcta aaaagaatta 5280
aaacaattag ccaggtggta catggctgta gtcccagcta cttgggaagc tgaggtggga 5340
ggatcacttg agcctggaag gttgaggctg cagtgagctg tgttgacacc actgcactcc 5400
agcttgggca acagagaaga cactgtctca aaaaaaaaaa aaaaaaaagg gaatggtagg 5460
gtgtgtgtgt gtgtgtgtgt atgtatgtat gtatgtgtgg atatatcgtg tgtatgtatg 5520
tatatataat gtataattta cattatgtat ttttatattt ttaaacaatg gctctccgct 5580

Docket No. PS804

tatccaggaa atccaaacat ctgagaataa aagtaccata ctctttgcca agtgacttga 5640
aatattgata cgtataattt caacatgtaa actggagaca gtttttctag gagaacatct 5700
aagctaaaag caaaaccatg aaaaaacata cctatgaaag agccaccatg ctcagataag 5760
gtgcgatcag atgcttcaag attttcctat tcatatgtat tttctgattt ttatttgtt 5820
ctctctcaac accataggga aatagttatg agtatcaaag attttaagaa aattatatta 5880
ttttctgctg attgggaaaa gacacagtta ctctacttaa gaattaaata tatcaccaag 5940
ctcagagaga gagatagtct tatctgagct ttcattagga accactggaa ctagtttgtt 6000
aatagctgag atcagatata atttctattg agagtctcaa gcatgagtca tgtgttaaga 6060
taagtaatga cagcggactg attccacgaa ggctgggctt ggatgttctt tagatagaaa 6120
gcaaggaata ctttttttcat acttttagga attgtccaat ttttcagaga ttctgagaaa 6180
aacagaaaat gtaatgtgtg agtgtcgttg ttgttgttgt ttttaactgg ctattatcct 6240
ctaaatccaa agggttaaaa ccaaggtacc cttgacaacc ttcaggcctg cttcttcgac 6300
tgctatagaa ttgagttgga agctgaagaa cattttacgc acaaagttcc ttatagctga 6360
actctgcaag aggggagctt ttcacaagac tgatgtcatg tgggaacgga ggagtggaga 6420
gcacagccca gccccccttc gggtgggggc ctgtaatgca tatgcattcc tcctggaatg 6480
ctgtcattag gcatcattca gtggactgaa aactcccgag tctcactcca gagaagctgg 6540
atggtgctag aatgctgtcc cgagatggac acaggggcca tgcaaagccc cacaggaggg 6600
cccttgtcat agccaggagg gcaccagcca cccccaagct aaaggaagtg ggcgaacaga 6660
agtgccaggg tgagcagaag ctcaggccag atcccatctc agatcacccg cctgacaggt 6720
ctagggaagg agcgtcctgc aggcctgtaa gctgtcagca aagtgagttg ggtctcaggc 6780
cgtcaccagg gattgcgctg ctgtgactgg gcaggaacac agcagagccg agctgccagc 6840
ttcctgggct gagcctcagg tggggaggcc aggcctgagg agcagctagg ttttgcaggc 6900
tctccatttg ctcccccaaa ctctcctgtt tttgtctctt aaggggcagc cctgaagcac 6960
agagctggcc accagctgtt catgagagat gctttagtag gccatgttta tctccttttt 7020
atcccaaaga gttttccttg tcatatttca gcaggggcca ttttatggta agtccttgca 7080
gggcagcctc acccaggctc tcagcacagt gctgtggaag acaccaggct ccctgggggg 7140
gcccttcgtc ggctcttgct tcactgtaga taagaaatca gaaaatcctt gttgattgca 7200
tcaactcctc aggttaattt gacagtaagt catcaggcat catctataaa gtccagagga 7260
atctgtttgt gttgtttgaa agggcttgaa ggccaggtgc agtggctcat gcctgtaatc 7320
ccaacacttt gggaggctgg ggcaggtgga tcgcttgagg tcaagagttt gagaccagtt 7380
tggccaacat ggtgaaaccc gatctctacc aaaaatagaa aaattagccg ggcatggagg 7440
caggcgcctg tattcccagc tacttgggag gctgaggcag cagaatcgct tgaacccagg 7500
aggcagaggt tgcagtgagc tgagatcgca ccactgtact ccagcctgga caacagagca 7560
agactccatc tcaaaaaaat atataaataa aaaataaaat aaaagacctt gaagattgtg 7620
atgatgtagt agcaggtgat ttgttccaca gaaactataa atcgtgagag cctgaactgg 7680
catgccagaa acatgggatt ccactgcttt agtgctgttt ttctccttta caggaatttg 7740
aaagggaaaa acacgcccac agtatactgc aatttcagtt tgctgaagtc aaggaggccc 7800
tgaagcaaag agaggaaatg ctcgaggtag gtagcattct cctgcttttc ttttcctttt 7860
ttccctttgg agcattttgt caggccatga ctatcttagc ttaggctgca gtaataaaat 7920
accatacaca gcatggctta aacaacagaa attaattttc ttacaattct ggaggctggg 7980
agtccaagat caaggttggg ttcaggtgag gcctctcttc ctggcctgca gacagccacc 8040
ttcttgctat atccttcctc caacggtgga gaaaaagcaa tgtctctgat gtctcttcat 8100
ataaggacac taatcctatt tgatcaggac cccactctta tgacctcatt taaccttaat 8160
tacttcgtaa aaaccctatc tccaaataca gtcacattgg gcattagggc ttcaacagat 8220
gaatttagag ggacacaatt cattccatgg caattactaa agttttcagt tttcttaaat 8280
ctgagagttt aggctaactc tccatcccta gatttacgaa acagtccctc tcattggtga 8340
acattcctat tctttggtga tcttgtattt gtttggggag gtgtggtaga cagaataatg 8400
gtcccccgaa gttgcctaca tccagatccc tggaaactgt aaatatgatg ccttacatgg 8460
ttaaagggcc cctgcagttg tgatgagaga ccttgagaga agggattatc ctggattatt 8520
tgatggaaca agcatccttc taagaggaag gcaactcaaa ggcagaagta gaagatgtga 8580
cacaggaagc tgaggttgga gcgatgcgag agaggggcca tgagccaagg aaagcagctc 8640
agtcttagaa gctgaaaaag gcagggaaac agattctccc tagagccttc cagaaaggct 8700
tgattttagc ccataagact cattttggac ttctgacctc tagaattgca agagaataaa 8760
tttgtgtttt aagctgctga atttatgacg attcattaca atggcaataa gaaactaata 8820
cagggttggt ttttaatttt ttgacttaat cggttcttta actgctgcct tgaagtgaga 8880
atttcaccca aagcaggttt tcttcctgca cttcttgaag ccggaagtag gacaaggaaa 8940
aaaatcctag aatgctgaca atgagttcag ggttgatgag gtgaaagagt gcttgcggcc 9000
tcactcactg tcccagctct caggttctct ctcgggctgg ggtttttctt cctctttaac 9060
cctttatctg ctttctgtct gttccctttcc tcaggaaatc cgacagctac agcagaaaca 9120
ggcgagttct atcagggaga tttctgatct tcaggaaaca atagagtgga aagacaaaaa 9180
gataggggta ggattcccaa gtcttgaaaa tctactcaaa tgggcagcct gcttagcaaa 9240

09505000 - 090104

tagagttttt tcagagtctt tagtttgcaa aaccgcttgt ctgagtatgc atgcaactcc 9300
cacgtgacac aaagtcgtat taatttattt aattttatta agtagtgaat acactaactt 9360
atccaaattg atatgaactt ggattgtgac acggactctc catggagggt cttgtgaatg 9420
cgtagctgtg cgctctgcct gccccgtggc tgggccgggc cggtggttgt tgaaacagct 9480
ggagtgagga ggacactctg aggaggtctg atgtgtgcaa gtccagacgt cttgggatta 9540
tctgc 9545

<210> 2086
<211> 7809
<212> DNA
<213> Homo sapiens

<400> 2086
aggtagaaga gagaccagaa aaagatttta ctgagaaggt aaggaatcgt tcataaacct 60
agagggtccc aaaagttgtg gatgaaattg ataagaaaat atgttgcttg gttttttta 120
ataaggatgt tccccagcga gggaactgga ctagaaagcg gcccacctaa cctggtatca 180
ccttcccgga ggtaggccac cgggagtcct gtccggtgtg cgttagatcc tgtagagcag 240
ggaggcgttt ataatgggcc ccaccatgga gtttagggtt aatccagcta atcgcagagc 300
atccaggagg tgcctggaaa tgatcccctc cttacagttt actataagcc catgaagagt 360
ttccaatttg gaaatggaat taaagtaaca gtcctgtgat gttagattta tatgcagttt 420
tggttttgtc tgaaatcgca tctgtgttag tccgttctca cactgccata aagaacttcc 480
ctgagactgg gtaatttaca aagaaaagag ctttaattga ctcacagttc cgcatggctg 540
gggagacctc aggaaactta caatcatggt gaaaagggaa gcaggcacct tcttcacaag 600
gcgacaggag agagaacatg tgaaggagga actgtcaaac acaaagccat cagatctcct 660
gggagcccac tcactatcac gagaacagca tgggggaaac tgcccccgtg atccagtctc 720
ctcccaccag ggccgtccct catcttgtgg ggattatggg gattacaatt ccagatgaga 780
tttgggtggg gacacagagc taaaccatat cagcatgtga tcctctcaac gttccagggg 840
tctcgtaaca tgccgggcct gtctgcagcc acgctggcct ctctgggtgg gacttcctct 900
cggagaggca gcggagacac ctccatctcc atcgacaccg aggcatccat cagggaaatc 960
aaggtgagat gctctcttct tactgacaac ttgagagaac cttttgtaaa aatcagtctt 1020
tagattaaaa aaaaaaaagt taattcataa agttctggat ctttcttctt ggtcctctct 1080
ccctcacctc ccctaaaata cggtgttctc ctaacatcaa gacccagctc agatagtgtc 1140
tcctgcagga atctgatcct acccactgac cccccagcag ggcggaccgt gtgccggccc 1200
cctgcgcccc tcagcacccg gggaatacct tagtgagagc acttggcacg ttgtgttgat 1260
gcacttggtc gtctctgtat gcttggtctg catagacatt cagtccacaa gtttggacac 1320
cagacggctt tacctacttt cacacaaccc ctccccacta agtatgttcc ccttcggcct 1380
agaacttgcc ctttcctttc tctttgtaat gtgcctttag tagccctcat ctttgtattt 1440
taatgatttt ttttatccca ctgtagtgta ggtattattc tctgctctat cctcagcacc 1500
caggacagtg ccaggcattt ggtagtattc tgtgtgtgaa agagaaacac ggtgctattt 1560
gttaaagtaa ctagggacag tgcatctgaa aacctgaaga ctggaagggc aggtgaggtg 1620
actagacctg tgtcctccag ggagcagaac caagacagaa gcagctgaaa ggagccagaa 1680
ctgactcaga ttctgaattt tctagtgctt taaactaggt ttaaaaggga agcaacttcc 1740
actggggatg tctgagcagc tggatggccg tttgccaggg aggacggaga gggatttaag 1800
catccaccag agtttggcca gggttacctt gaagatgctt ccaacaccta tgttttataa 1860
gtttacaaaa ccagaagagc catttcccat gtgccacccc tgggccacct gcagctcctt 1920
gttgcttccc ttttttttte ctttttcttt tcttttcttt ctttcttttt ttttttttt 1980
ttttttttt ggagacaaaa gttttgcttt tgtcacccat gctggagttc aatggcacga 2040
tctcggctca ctgcaacctc cacctcccag gttcaagtga ttctccagcc tcagcctcct 2100
gagtagctgg gattacaggc gcccgccacc atgcccggtt aacttttgta tttttagtgg 2160
agacggggtt tcgccatgtt ggccaggctg gtcttgaact cctgacctca ggtgatccac 2220
ccactcggcc tcccaaagtg ctgggattcc aggcgtgagc cgctgcgcct ggcctgttgt 2280
ttccgtttct acagcagaac accaaagttg gcggcagtcc tgatgtttct ctgcccttag 2340
gttgcgcgtg ccgttcattt gttcaggtac ttactgagag gctggctggt gccagatgct 2400
gtccccggca ccaggaattt ggcaaagtag agacttggag ctccataaat gcagggaaaa 2460
agtgctactg atttttgcct ctagcatctt actgtacatt gcacagagta ggaactccta 2520
gtgcttgaat gaattactaa ataggagttg aaataacctg taccgttttc cgaggctcta 2580
ttttgtctgt ttttaaact gtgtaaaatc atatgagata cactaaaatt gtataaaatc 2640
atgtaaaaat atcatatggg atacacctga actttaatct ttaaatattg aagtttattt 2700
tcccttaacg cttaataaaa taaaaaagaa aattgggtgc tcagactacc caaatagaaa 2760
ctaccctgaa gtataaaaga tttagggaat cacctgtttt cccttgacat catctgcctt 2820

PE2-09-0056-US

Doc. No. 6,150,160

ttttgccatt tcccccagga actcaatgag ttaaaggacc agattcagga tgtagaaggc 2880
aaatacatgc agggattgaa agagatgaag gtaccaattc acagacgtgt ggtctcacga 2940
tattaaccca acttaactta aaaaaaaaaa caacatccta aagaagaaat tcaaagtgca 3000
tgcttactgt aaataggctc cagggtgtag aagaactcac aatggcagga gtgccggcat 3060
gggtgtacac tcaccatttt cccaaatgca ttgtttgaac caagattgaa aatgtaactg 3120
cccagtagaa aaggttacta acatactccc tgatgcatgc cttagactta ccatccttcc 3180
cccaggctta aaaccagttt ctcatttccc ataggcgtgt gccagacact tgaagaaggt 3240
tcttggtttt cttcactttt tgtagtagtt gtatacaaaa atgcttcagt tgatttgctt 3300
ctcaaaatat ctgatgtcta ctaataaggc cgtcctcaca tgccacactt ttgaaacatc 3360
ccaattattt gcaccctgta aaatgctact aattgaagta aagactgact atggcattgg 3420
ctttcttgga gcgtgtgcac actgctttta gagtgtgcag tgacttcatt gcaccagcca 3480
ggagatgtgg ttgccctgtt ccttgacagt aaggtgggca atcagtgact gtcttcctta 3540
ggcagcagcg gatcatggat ctggaagtgg gtggcgtatc tgttacttcc ttttcagccc 3600
cctagaaagt acctgcaaga tcatttgaat ttaatatcaa agggcaccag acagaggagg 3660
tgacatcgat catgactaat tcactatctt catatctgcc acctttcctg aaaggggaa 3720
aaataagact ctggctttca attcatgcga aaaggagcca cttggccagg cgtggtggct 3780
cacgcctgta attccacact ttgggaggcc gaggtgggtg gatcaccgga ggtcaggagt 3840
ttgagaccag cctggccaac atggtgagac cccgtctcta ctaaaaatat aaaaattagc 3900
caggtgtggt ggtgcgcacc tgtaatccca gctacttggg aggctgagtc aggagaatca 3960
cttgaacctg gcaggtggag gctgcagtga gccgagatcg tgccactgca ctccagcctg 4020
ggtgacagag cgagacactg tttcaaaaaa gaaaaaatgc tgctggggag ccactgaacc 4080
aaccggagac ccgctggtcc cacgtgaagc agctgtcctg gtgtggaggt acagagctag 4140
accagcactg gtccctccag ccccctggta gcctctgctg cacctgaact ggcagctctt 4200
gccgctgcct ttagctctgc atgtatgcgc cctgaaggtt ctgcctctct gttttggaat 4260
cgccttcccc tcctcatgtt tggggacctg caagggtgtg aggcacgtga gggcatcgcc 4320
atgcgtattt tacaggcctc tttctctgga ctgtccttca aagggaatga cctttgtctt 4380
tccaggacct acccagtgag atctgcctgc cattttccta tgagtcaaaa atctgaactc 4440
actactgctc ctttcctggt tcataagcca gagtagggct ggttggcagt cactggcttg 4500
tggccctatg taattatctc agccatcaca cactggctct ttcacaaggg ctggtcacac 4560
gcctcgagtg attcttcaga aatctgttga acagcctgac acccagccct aggacgccgt 4620
gctgggggga ttccccagct actgagtggg gccagagact ctactgcctc tgtgaccaca 4680
tccctttcca tactggtatc tcgtttgttc taatgagtgt gtccattgct tttaatagtg 4740
aattttctga gcaatgagaa tttgaccaaa ttgaaaaggg ggatttccat gcatttgaaa 4800
ttgccatgtg tttcttcttc tgatccattt gctctaagaa atatagtcta agtttaggac 4860
tgagggtttt tttttaacag aatactgaat gattctttgt tttgattttt ttattgcaat 4920
ttcaaaaata tgacctgctt tccacaggac tctctagcag aagttgaaga gaaatataag 4980
aaggctatgg tttccaatgc tcagctagac aatgaaaaga caaacttcat gtaccaggtt 5040
gataccctaa aagatatgtt gctggagctt gaagaacagc tggctgaatc taggcggcag 5100
tacgaagaga aaaacaaagt aagcattagt atgatacaga atgttaacaa taggctgcgt 5160
gcagtggccc atgcctgtaa ttctggtact ttgggaggcc aaggtgggag gattacttga 5220
gcccaagagt tcgagaccag cctgggcaac atggcgagac atcatttcta aaaagaatta 5280
aaacaattag ccaggtggta catggctgta gtcccagcta cttgggaagc tgaggtggga 5340
ggatcacttg agcctggaag gttgaggctg cagtgagctg tgttgacacc actgcactcc 5400
agcttgggca acagagaaga cactgtctca aaaaaaaaaa aaaaaaaagg gaatgctacg 5460
gtgtgtgtgt gtgtgtgtgt atgtatgtat gtatgtgtgg atatatcgtg tgtatgtatg 5520
tatatataat gtataattta cattatgtat ttttatattt ttaaacaatg gctctccgct 5580
tatccaggaa atccaaactc tgagaataaa agtaccatac tctttgccaa gtgacttgaa 5640
atattgatac gtataatttc aacatgtaaa ctgaagacag ttttctagga gaacatctaa 5700
gctaaaagca aaaccatgaa aaaacatacc tataaagagc caccatgctc agataaggtg 5760
cgatcagatg cttcaagatt ttcctattca tatgtatttt ctgattttta ttttgttctc 5820
tctcaacacc atagggaaat agttatgagt atcaaagatt ttaagaaaat tatattattt 5880
tctgctgatt gggaaaagac acagttactc tacttaagaa ttaaatatat caccaagctc 5940
agagagagag atagtcttat ctgagctttc attaggaacc actggaacta gtttgttaat 6000
agctgagatc agatataatt tctattgaga gtctcaagca tgagtcatgt gttaagataa 6060
gtaatgacag cggactgatt ccacgaaggc tgggcttgga tgttctttag atagaaagca 6120
aggaatactt ttttcatact tttaggaatt gtccaatttt tcagagattc tgagaaaaac 6180
agaaaatgta atgtgtgagt gtcgttgttg ttgttgtttt taactggcta ttatcctcta 6240
aatccaaagg gttaaaacca aggtaccctt gacaaccttc aggcctgctt cttcgactgc 6300
tatagaattg agttggaagc tgaagaacat tttacgcaca aagttcctta tagctgaact 6360
ctgcaagagg ggagcttttc acaagactga tgtcatgtgg gaacggagga gtggagagca 6420
cagcccagcc ccccttcggg tgggggcctg taatgcatat gcattcctcc tggaatgctg 6480

tcattaggca tcattcagtg gactgaaaac tcccgagtct cactccagag aagctggatg 6540
gtgctagaat gctgtcccga gatggacaca ggggccatgc aaagccccac aggagggccc 6600
ttgtcatagc caggagggca ccagccaccc ccaagctaaa ggaagtgggc gaacagaagt 6660
gccagggtga gcagaagctc aggccagatc ccatctcaga tcacccgcct gacaggtcta 6720
gggaaggagc gtcctgcagg cctgtaagct gtcagcaaag tgagttgggt ctcaggccgt 6780
caccagggat tgcgctgctg tgactgggca ggaacacagc agagccgagc tgccagcttc 6840
ctgggctgag cctcaggtgg ggaggccagg cctgaggagc agctaggttt tgcaggctct 6900
ccatttgctc ccccaaactc tcctgttttt gtctcttaag gggcagccct gaagcacaga 6960
gctggccacc agctgttcat gagagatgct ttagtaggcc atgtttatct ccttttttatc 7020
ccaaagagtt ttccttgtca tatttcagca ggggccattt tatggtaagt ccttgcaggg 7080
cagcctcacc caggctctca gcacagtgct gtggaagaca ccaggctccc tgggggggcc 7140
cttcgtcggc tcttgcttca ctgtagataa gaaatcagaa aatccttgtt gattgcatca 7200
actcctcagg ttaatttgac agtaagtcat caggcatcat ctataaagtc cagaggaatc 7260
tgtttgtgtt gtttgaaagg gcttgaaggc caggtgcagt ggctcatgcc tgtaatccca 7320
acactttggg aggctggggc aggtggatcg cttgaggtca agagtttgag accagtttgg 7380
ccaacatggt gaaacccgat ctctaccaaa aatagaaaaa ttagccgggc atggaggcag 7440
gcgcctgtat tcccagctac ttgggaggct gaggcagcag aatcgcttga acccaggagg 7500
cagaggttgc agtgagctga gatcgcacca ctgtactcca gcctggacaa cagagcaaga 7560
ctccatctca aaaaaatata taaataaaaa ataaaataaa agaccttgaa gattgtgatg 7620
atgtagtagc aggtgatttg ttccacagaa actataaatc gtgagagcct gaactggcat 7680
gccagaaaca tgggattcca ctgctttagt gctgtttttc tcctttacag gaatttgaaa 7740
gggaaaaaca cgcccacagt atactgcaat ttcagtttgc tgaagtcaag gaggccctga 7800
agcaaagag 7809

<210> 2087
<211> 1015
<212> DNA
<213> Homo sapiens

<400> 2087
cttctttggt ttaatgcagg atcaccagac tctgtggccc acgacctgtt tttgtgtagc 60
ccataagaca tacctttcta agtactatag ctgaaaaaca tcaaaagagt agtaatattt 120
tgtgacatgt gaaaattata tgaaattcaa atttctgtct gtaaacctca ctggaacaca 180
gccatgctca ttcgtttgta tatggtctgt ggctgctttc tccctacaac ggtagaattg 240
aacagttgca tcagagacct tatggcctgc taggccagaa atgttaagcc ctttacagag 300
aaagcttgct ggctcctgtt taatgcttta actgccctac tgaaaggcag gaggttgaaa 360
aaatgatggt agtcaaaagg aatgcatgaa atcctgttgt cttctgttag ctgattgcaa 420
gtagtacaca ggatatattt gagacatctc ttttcctatc tcccaccaaa ggataattca 480
ggcggatctc agtgcacagg cacaggcatt tgcctcattc ttgttttgtc tgttttgaat 540
ttagttatgg gaatatttta atatctctca aaaatagggt atctggtgtg agtcagaatg 600
attatagaac atgcttgcct ggagaacagg aaatgcggga tccactcctg gtgtgctgtt 660
agctgaagga cgtcagaact gtcctttaac ctccctgcag gtctctaaat ggtaggattg 720
tttggggatt acactagatc atctctaggc accgttcagc tcagtagaga cattgctgca 780
tggtggaagg agtgacctca gtgtgaatcc tggttctgtc cctttctgcc caggagacct 840
tgagcagctt atctaaatgc tgtgtgcctt tgttagctca tctgaaaatg tggctgtaag 900
aatgacctca tgagaatgga ctgagatcat attcttaaaa ctcttggcac taataggtat 960
ttaatctact ataactgtga aaattatgtc tgtgaactct ttttttttt ttttt 1015

<210> 2088
<211> 1015
<212> DNA
<213> Homo sapiens

<400> 2088
cttctttggt ttaatgcagg atcaccagac tctgtggccc acgacctgtt tttgtgtagc 60
ccataagaca tacctttcta agtactatag ctgaaaaaca tcaaaagagt agtaatattt 120
tgtgacatgt gaaaattata tgaaattcaa atttctgtct gtaaacctca ctggaacaca 180
gccatgctca ttcgtttgta tatggtctgt ggctgctttc tccctacaac ggtagaattg 240
aacagttgca tcagagacct tatggcctgc taggccagaa atgttaagcc ctttacagag 300

09508852.030104

aaagcttgct ggctcctgtt taatgcttta actgccctac tgaaaggcag gaggttgaaa 360
aaatgatggt agtcaaaagg aatgcatgaa atcctgttgt cttctgttag ctgattgcaa 420
gtagtacaca ggatatattt gagacatctc ttttcctatc tcccaccaaa ggataattca 480
ggcggatctc agtgcacagg cacaggcatt tgcctcattc ttgttttgtc tgttttgaat 540
ttagttatgg gaatatttta atatctctca aaaatagggt atctggtgtg agtcagaatg 600
attatagaac atgcttgcct ggagaacagg aaatgcggga tccactcctg gtgtgctgtt 660
agctgaagga cgtcagaact gtcctttaac ctccctgcag gtctctaaat ggtaggattg 720
tttggggatt acactagatc atctctaggc accgttcagc tcagtagaga cattgctgca 780
tggtggaagg agtgacctca gtgtgaatcc tggttctgtc cctttctgcc caggagacct 840
tgagcagctt atctaaatgc tgtgtgcctt tgttagctca tctgaaaatg tggctgtaag 900
aatgacctca tgagaatgga ctgagatcat attcttaaaa ctcttggcac taataggtat 960
ttaatctact ataactgtga aaattatgtc tgtgaactct ttttttttt ttttt 1015

<210> 2089
<211> 130
<212> DNA
<213> Homo sapiens

<400> 2089
tgagacggag tttcgctctt gttgcccaga ctggagtgca gtggcatgat ctcggctcac 60
tgcaacctct gcctcccagg ttcaagcaat tctcctgcct cagcctcctg agtagctggg 120
attacaggca 130

<210> 2090
<211> 527
<212> DNA
<213> Homo sapiens

<400> 2090
gttcctttaa aagccagctt ttctactaga atcaacatta tttgaattac atgcaattat 60
atgagatcat atcaatgcat aggaagctag acatgtatta gattgtggtt aagggcatac 120
gctttggagc catataatat agctgtggtt caaagcctgg ctttgccatt tacttactag 180
ctgtgtatga tcttggcctt ccatttcctc ctgggaatga taataatact tgctgtgaag 240
attaaatgaa attacccatg tgaaatgctt agcatggtac ctaagtagtg ccactctaaa 300
gtttcatggc ctcctactct ctggacacat acctatcctc tgtctgctag aactcctcac 360
ttccctgttc tcctaactta cttatccttc agagcccagt tcaagggacg tcttcatgaa 420
gtccccctg ccccagccct gtgcttccac agggcctgtg cacgcctctc tctgcttccc 480
actgtgtgcg ggccctacct cctcctttta ttgtgcttca ctttctt 527

<210> 2091
<211> 2075
<212> DNA
<213> Homo sapiens

<400> 2091
agcaaactga atcagagaag gtgagtggca aagcccatgt agctggtggc attactagaa 60
cttagcactg tgatgcacaa aggcttaact gggtttggca gcaagggtct catggatact 120
ctttaagatg taggcccaga tctcttagta gtgaatccct gatgttccct ctcttggggc 180
tctggtttag caaggacagc gaggatactt tcctctctcc ctcctcctta ctcctctcta 240
ctaaggatta aggagccacc tcttcctcct taaggccttt gggagagatg ggtctcctgg 300
tattagaaag gagagcagac gcctagagtt ctgacctctt gggcctcccc taaacaaaaa 360
gcatagcccc ttcactaccc tagtaacaag tatgacctgt tgcctgttga ggtcaggtgt 420
acctgtgtgt ctctctctgt gatgtatgtg ggcttggtgt ccacatcaat gtgcgtgaat 480
actcctaccc acagactgct actgtgccaa tatagaggtt cataagaaag ataaaagaga 540
accagcagaa ccccaggttc tgcctctcct tcctcccttt gcccagataa aggtgtacag 600
tgtttgtggt gaggctgctg gacactgctg ttttgggctt tctagagaga atgcaaacat 660
gcaaaaacag tgtggtagtg taggcagaac aagatctaga atcagaagac ctggagtcga 720
atctcagctc caacacccac tggatgaacg tggacaagct gcttgatctc tcagatcctc 780

gatttcttca tctgtaagat ggaaacaata tgtgtctttt ctaaggggaa agatcaaatg 840
acatcatgta tgtgaaaatg cttagaaatg ggtgatgatg atgatgatga tactgattat 900
tagggtatct aataaagttg gggaaagaac aaaatccccc cctcacaccc tattgcacca 960
ccagccttct ccctccctgc tcaattatac ccatgttata gggaaggaaa tagggaagaa 1020
acttgtctaa ggtcacatgg atgttcgcaa caattgggat gcagaacttg atctgactcc 1080
caggccaggt ttgattttga tttgcagtgg cagagaggac taatttttta ctaggttctg 1140
agccctgtac tgaactctgg attgccctgt acttggtggt ggtatacagt tcagcagttt 1200
ttagcatata cacgaatttg tgcagccata accactatct aattctagaa cattttatc 1260
acccccaaaa gaaatcatgt acccatttgc agtcacttgc cattccctct tctccccagc 1320
cctgggaaac cactgaccta ccttatatct ctatgaattt gcctaatctg gacatttcat 1380
ataaatgcaa ttgtacatgt ggccttttgt ttctggcttc tttcacttag catgttttca 1440
aggttcattt gtgctgtagc atttatcagt actttgttcc tttttctagc tgagtaacgt 1500
gtgggtatat cacattttgt ttattcatct gttgagggat gtttgggttg tttctacttt 1560
ttgactattg tgattagtgc tgctatgaac attgatgtac agatttttgt gtagatatgt 1620
tttcaattat cttggggcat cttttatttt taatgtcagt tttctatttt taaaaaatct 1680
agacaggttg gcaaatcatt tctgtaaaga gtcagtaaat attttagcct ttgtggtcca 1740
tgacattagg tatacagatt acaatttctg aactctgcca ttccagtgtg agagcagcca 1800
tagataatat gtaaacaaat gagcatggct atgttccaat aaaacttta aaaagcaggg 1860
gacagattgg gcctgtggac catagtatac caacccttaa tctaaatgac acattcacat 1920
gatacattat tctaaaggca caaaaagcaa aaattctccc tcccacctct gtcttccagc 1980
tacggggtta ccttccttga agcagttaat gttatgagat tttgtgtctc cttttagaca 2040
cagttaataa tgagcattaa agtggctata tacta 2075

<210> 2092
<211> 2075
<212> DNA
<213> Homo sapiens

<400> 2092
agcaaactga atcagagaag gtgagtggca aagcccatgt agctggtggc attactagaa 60
cttagcactg tgatgcacaa aggcttaact gggtttggca gcaagggtct catggatact 120
ctttaagatg taggcccaga tctcttagta gtgaatccct gatgttccct ctcttggggc 180
tctggtttag caaggacagc gaggatactt tcctctctcc ctcctcctta ctcctctcta 240
ctaaggatta aggagccacc tcttcctcct taaggccttt gggagagatg ggtctcctgg 300
tattagaaag gagagcagac gcctagagtt ctgacctctt gggcctcccc taaacaaaaa 360
gcatagcccc ttcactaccc tagtaacaag tatgacctgt tgcctgttga ggtcaggtgt 420
acctgtgtgt ctctctctgt gatgtatgtg ggcttggtgt ccacatcaat gtgcgtgaat 480
actcctaccc acagactgct actgtgccaa tatagaggtt cataagaaag ataaaagaga 540
accagcagaa ccccaggttc tgcctctcct tcctcccttt gcccagataa aggtgtacag 600
tgtttgtggt gaggctgctg gacactgctg ttttgggctt tctagagaga atgcaaacat 660
gcaaaaacag tgtggtagtg taggcagaac aagatctaga atcagaagac ctggagtcga 720
atctcagctc caacacccac tggatgaacg tggacaagct gcttgatctc tcagatcctc 780
gatttcttca tctgtaagat ggaaacaata tgtgtctttt ctaaggggaa agatcaaatg 840
acatcatgta tgtgaaaatg cttagaaatg ggtgatgatg atgatgatga tactgattat 900
tagggtatct aataaagttg gggaaagaac aaaatccccc cctcacaccc tattgcacca 960
ccagccttct ccctccctgc tcaattatac ccatgttata gggaaggaaa tagggaagaa 1020
acttgtctaa ggtcacatgg atgttcgcaa caattgggat gcagaacttg atctgactcc 1080
caggccaggt ttgattttga tttgcagtgg cagagaggac taatttttta ctaggttctg 1140
agccctgtac tgaactctgg attgccctgt acttggtggt ggtatacagt tcagcagttt 1200
ttagcatata cacgaatttg tgcagccata accactatct aattctagaa cattttatc 1260
acccccaaaa gaaatcatgt acccatttgc agtcacttgc cattccctct tctccccagc 1320
cctgggaaac cactgaccta ccttatatct ctatgaattt gcctaatctg gacatttcat 1380
ataaatgcaa ttgtacatgt ggccttttgt ttctggcttc tttcacttag catgttttca 1440
aggttcattt gtgctgtagc atttatcagt actttgttcc tttttctagc tgagtaacgt 1500
gtgggtatat cacattttgt ttattcatct gttgagggat gtttgggttg tttctacttt 1560
ttgactattg tgattagtgc tgctatgaac attgatgtac agatttttgt gtagatatgt 1620
tttcaattat cttggggcat cttttatttt taatgtcagt tttctatttt taaaaaatct 1680
agacaggttg gcaaatcatt tctgtaaaga gtcagtaaat attttagcct ttgtggtcca 1740
tgacattagg tatacagatt acaatttctg aactctgcca ttccagtgtg agagcagcca 1800
tagataatat gtaaacaaat gagcatggct atgttccaat aaaacttta aaaagcaggg 1860

gacagattgg gcctgtggac catagtatac caacccttaa tctaaatgac acattcacat 1920
gatacattat tctaaaggca caaaaagcaa aaattctccc tcccacctct gtcttccagc 1980
tacggggtta ccttccttga agcagttaat gttatgagat tttgtgtctc cttttagaca 2040
cagttaataa tgagcattaa agtggctata tacta 2075

<210> 2093
<211> 478
<212> DNA
<213> Homo sapiens

<400> 2093
actgggaaca gcaggaaagg gcaaggtggt gacaatctaa gggaggcaaa tggataataa 60
ccagcatggt agggaatctt ctttgttgct gtggcactgt cgatctctgt tccctgaact 120
ctagtgtcct ccagactaga tttaaggtgt ggttccccgc taaattattc tctcacctcc 180
tttcagtctt tgctcaaaca tccttttatc agagaggctt tctgacatcc tgtgcaagat 240
agcacctctc ccccatcgct gttatcctta cccagtttaa ttccacgtag catctgccaa 300
cgcttgacat atttgttttt tgtttacttt ctggcctgtg acaactagaa tataagctct 360
gtgagagcat ttttctctta actgcttatc ttcaagtaaa cagaacagtg cctgtcctgt 420
aggaagtgtt tgatacatac agattgctca aatgaaaaaa gaagggtgcg agcaagcc 478

<210> 2094
<211> 1011
<212> DNA
<213> Homo sapiens

<400> 2094
agtccttgag gaacagaacc ctaaaagaga gaacacctgc ctaatctgac tcctccatca 60
gaataatctt ttgaactcct gagatttgcc cagtcatttt ggggccatgt ctgatgaaag 120
cttggtgatc ccttttgggt caaaaacaag ctctgactga agagatgcaa gattttctca 180
gatgatttgt gtgtcagtca gagttccgcc agagaaacac aaccagtagg atatattcta 240
tcttgtctgt cttcatatcc atgtatctgt catctaccta gatttaatgc aaggaattgg 300
tttatgcagt tgtaggggct ggctaggcaa atccaaaatc cacagggcag gccgtgtgga 360
agggaggtct ggaaactctc agacaagacc tgacattgca gtccactggt ggaatttctc 420
cttcttcagg gaaacctcag ctttcaacgg agtggatcag acccaaccat attatccagg 480
ataatctcct ttacataaag ttaactgatt gtagatgtaa attacattta caagatacct 540
tcatagcaac acctaggtca gtttttgaat aactgggtat tatagcatag ccaggtcaac 600
acgtaaaatt gatcaccaca gtccatgtct tgttaacttg gcacctgtac acatttcctt 660
aaaccattta atctcccaat aaagacaata acaaagtaaa acttctgcct atcatgacac 720
agctaatctg tgtacaactg aaaatatgct cttttcctgg gagagaattc acagtccttg 780
actggtgttc acttttatcc ttgataatcc agtaacttta ataatattat gtaaatgtag 840
ctattttaat aaatttttatg ttagatgaca aggggataag agagggaaga aaaaatacat 900
aaacacaaac attcataaca aaacaatgaa tactcataat aattatagta ctaacttctg 960
caactgttca catgatgtgt tttataacta ccggtgttac aaaattactg g 1011

<210> 2095
<211> 478
<212> DNA
<213> Homo sapiens

<400> 2095
actgggaaca gcaggaaagg gcaaggtggt gacaatctaa gggaggcaaa tggataataa 60
ccagcatggt agggaatctt ctttgttgct gtggcactgt cgatctctgt tccctgaact 120
ctagtgtcct ccagactaga tttaaggtgt ggttccccgc taaattattc tctcacctcc 180
tttcagtctt tgctcaaaca tccttttatc agagaggctt tctgacatcc tgtgcaagat 240
agcacctctc ccccatcgct gttatcctta cccagtttaa ttccacgtag catctgccaa 300
cgcttgacat atttgttttt tgtttacttt ctggcctgtg acaactagaa tataagctct 360
gtgagagcat ttttctctta actgcttatc ttcaagtaaa cagaacagtg cctgtcctgt 420
aggaagtgtt tgatacatac agattgctca aatgaaaaaa gaagggtgcg agcaagcc 478

<210> 2096
<211> 1011
<212> DNA
<213> Homo sapiens

<400> 2096
agtccttgag gaacagaacc ctaaaagaga gaacacctgc ctaatctgac tcctccatca 60
gaataatctt ttgaactcct gagatttgcc cagtcatttt ggggccatgt ctgatgaaag 120
cttggtgatc ccttttgggt caaaaacaag ctctgactga agagatgcaa gattttctca 180
gatgatttgt gtgtcagtca gagttccgcc agagaaacac aaccagtagg atatattcta 240
tcttgtctgt cttcatatcc atgtatctgt catctaccta gatttaatgc aaggaattgg 300
tttatgcagt tgtaggggct ggctaggcaa atccaaaatc cacagggcag gccgtgtgga 360
agggaggtct ggaaactctc agacaagacc tgacattgca gtccactggt ggaatttctc 420
cttcttcagg gaaacctcag ctttcaacgg agtggatcag acccaaccat attatccagg 480
ataatctcct ttacataaag ttaactgatt gtagatgtaa attacattta caagatacct 540
tcatagcaac acctaggtca gtttttgaat aactgggtat tatagcatag ccaggtcaac 600
acgtaaaatt gatcaccaca gtccatgtct tgttaacttg gcacctgtac acatttcctt 660
aaaccattta atctcccaat aaagacaata acaaagtaaa acttctgcct atcatgacac 720
agctaatctg tgtacaactg aaaatatgct cttttcctgg gagagaattc acagtccttg 780
actggtgttc acttttatcc ttgataatcc agtaacttta ataatattat gtaaatgtag 840
ctattttaat aaattttatg ttagatgaca aggggataag agagggaaga aaaaatacat 900
aaacacaaac attcataaca aaacaatgaa tactcataat aattatagta ctaacttctg 960
caactgttca catgatgtgt tttataacta ccggtgttac aaaattactg g 1011

<210> 2097
<211> 981
<212> DNA
<213> Homo sapiens

<400> 2097
ataacttcga tgtactggac ttgcatttcc acttccgcca cgcgagggag aacctgcact 60
gggacggggt gcactggaat ggacgtgtgc accgctgcct ctcccagctg ctgctggccc 120
acgtggccga cgcctggggt gtggagctgc cccaccgcca ccccgtgggc gagtggatca 180
agaagaaaaa acctggcccg agagtcgaag ggccgcccca ggccaacaga aatcacccgg 240
ccttacctct gtccccaccc ttaccttccc ccacataccg ccccctgctt gggttcccac 300
cccagcgctt gccgctgctc ccgctcctgt ccccacagcc tcctcctccc attctccatc 360
accagggaat gccccggttc ccacagggtc ccccagatgc ctgtttttcc tcagaccata 420
ctttccagtc ggatcaattc tattgccatt cagatgtccc ctcatcagcc catgcaggtt 480
tcttcgtcga agacaatttt atggttggtc ctcagctgcc tatgcccttc ttccccacac 540
cccgttatca gcggcctgcc ccagtggtac ataggggttt tggcaggtat cgtccccgtg 600
gcccctatac gccctgggga cagcggcctc gaccttcaaa gagaagggcc ccagccaatc 660
ctgagccaag gcctcaatag acggacctag gccttatttc ctctttatga acatggattg 720
gacagatctg acacttcctt tccattgctt ggcctgaaca gactgacctt gttaacttaa 780
gcctggagtc catgcctcgt cttccttttg ttcattgctg ttaccaagaa agccaaggaa 840
gagcagcctg actcattctt cttggctgca gcctcttccc cacttcctgg gagtgaccca 900
gcgttattcc tgcctcctca ctcctattct ctttgccttt gtgtaaaaat aaaatggaaa 960
taaacaagtt gcacagaagt a 981

<210> 2098
<211> 981
<212> DNA
<213> Homo sapiens

<400> 2098
ataacttcga tgtactggac ttgcatttcc acttccgcca cgcgagggag aacctgcact 60
gggacggggt gcactggaat ggacgtgtgc accgctgcct ctcccagctg ctgctggccc 120
acgtggccga cgcctggggt gtggagctgc cccaccgcca ccccgtgggc gagtggatca 180

agaagaaaaa acctggcccg agagtcgaag ggccgcccca ggccaacaga aatcacccgg 240
ccttacctct gtccccaccc ttaccttccc ccacataccg ccccctgctt gggttcccac 300
cccagcgctt gccgctgctc ccgctcctgt ccccacagcc tcctcctccc attctccatc 360
accagggaat gccccggttc ccacagggtc ccccagatgc ctgtttttcc tcagaccata 420
ctttccagtc ggatcaattc tattgccatt cagatgtccc ctcatcagcc catgcaggtt 480
tcttcgtcga agacaatttt atggttggtc ctcagctgcc tatgcccttc ttccccacac 540
cccgttatca gcggcctgcc ccagtggtac ataggggttt tggcaggtat cgtccccgtg 600
gcccctatac gccctgggga cagcggcctc gaccttcaaa gagaagggcc ccagccaatc 660
ctgagccaag gcctcaatag acggacctag gccttatttc ctctttatga acatggattg 720
gacagatctg acacttcctt tccattgctt ggcctgaaca gactgacctt gttaacttaa 780
gcctggagtc catgcctcgt cttccttttg ttcattgctg ttaccaagaa agccaaggaa 840
gagcagcctg actcattctt cttggctgca gcctcttccc cacttcctgg gagtgaccca 900
gcgttattcc tgcctcctca ctcctattct ctttgccttt gtgtaaaaat aaaatggaaa 960
taaacaagtt gcacagaagt a 981

<210> 2099
<211> 984
<212> DNA
<213> Homo sapiens

<400> 2099
gtggcatagc gctaaccaaa tccacttagg cttctgggct gcctccaggc tcttggctag 60
gcattctgct agcactctca tccctgggga gggtggatca tacttggctc ctccccacca 120
ggtggaacct gagcctccaa cagcagcctc aggtcattca taggtcaagc cccaggcctg 180
aactgccact agacaaggct tttggctccc ttcctgccct ctcgccaatc tcccaggtcc 240
gggcttggtg gagcctgtta tgcgggcact ccaggtccac tccctcaggg cagaggccac 300
agcgccatcc ccttccccat ggtctcccta cccccaacct gcactgggcg ctccgcccag 360
aggtgagtcc ctcccagccc ttctctcctt ctgtcctagc catccgcaga gccatcctgt 420
gcaaaggaag gagctaggct gtgcgccctg ggcgtcatga tccttctgcg ggcctccgaa 480
gtgcggcagc tgcttcacaa taagttcgtg gtcatcctgg gggactctgt gcatagggca 540
gtatacaagg acctggtgct tctgctgcag aaggaccgcc tgctcactcc cgggcagctt 600
agagcaaggg gggagctgaa cttcgaacaa gatgagctgg tggacggagg ccagcggggc 660
cacatgcaca acggccttaa ctaccgtgag gtccgcgagt tccgctccga ccaccatctg 720
gtacgttttt acttcctcac ccgcgtgtac tccgattacc tccagaccat cttgaaagag 780
ctgcagtcgg gcgagcacgc ccccgacctg gtcatcatga attcctgcct ctgggacatc 840
tccaggtatg gtccgaactc ctggagaagc tacctggaga acctggagaa cctgttccag 900
tgcctgggcc aggtgctgcc cgagtcttgc ctcctggtgt ggaacacggc catgcctgtg 960
ggcgaggaag tcaccggggg tttt 984

<210> 2100
<211> 118
<212> DNA
<213> Homo sapiens

<400> 2100
cctcagcctc ccgagtagct gggattacag gcatgcacca ccacgcctgg ctaattttgt 60
atttttagta gagacgaggt ttctccgtgt tggtcaggct ggtcttgaac tcctgacc 118

<210> 2101
<211> 984
<212> DNA
<213> Homo sapiens

<400> 2101
gtggcatagc gctaaccaaa tccacttagg cttctgggct gcctccaggc tcttggctag 60
gcattctgct agcactctca tccctgggga gggtggatca tacttggctc ctccccacca 120
ggtggaacct gagcctccaa cagcagcctc aggtcattca taggtcaagc cccaggcctg 180
aactgccact agacaaggct tttggctccc ttcctgccct ctcgccaatc tcccaggtcc 240

Doc. No. 4,950,288

EP 2 274 430 A2 20110119

gggcttggtg gagcctgtta tgcgggcact ccaggtccac tccctcaggg cagaggccac 300
agcgccatcc ccttccccat ggtctcccta cccccaacct gcactgggcg ctccgcccag 360
aggtgagtcc ctcccagccc ttctctcctt ctgtcctagc catccgcaga gccatcctgt 420
gcaaaggaag gagctaggct gtgcgccctg ggcgtcatga tccttctgcg ggcctccgaa 480
gtgcggcagc tgcttcacaa taagttcgtg gtcatcctgg gggactctgt gcatagggca 540
gtatacaagg acctggtgct tctgctgcag aaggaccgcc tgctcactcc cgggcagctt 600
agagcaaggg gggagctgaa cttcgaacaa gatgagctgg tggacggagg ccagcggggc 660
cacatgcaca acggccttaa ctaccgtgag gtccgcgagt tccgctccga ccaccatctg 720
gtacgttttt acttcctcac ccgcgtgtac tccgattacc tccagaccat cttgaaagag 780
ctgcagtcgg gcgagcacgc ccccgacctg gtcatcatga attcctgcct ctgggacatc 840
tccaggtatg gtccgaactc ctggagaagc tacctggaga acctggagaa cctgttccag 900
tgcctgggcc aggtgctgcc cgagtcttgc ctcctggtgt ggaacacggc catgcctgtg 960
ggcgaggaag tcaccggggg tttt 984

<210> 2102
<211> 173
<212> DNA
<213> Homo sapiens

<400> 2102
cattagcagc ttttaatcca ctaaaaaaac aagagtcttg gagaatggga cctttatctt 60
atctctgtgt ctcaaatctt agcacaacgc ctggcactta ataaatactg aatagcattt 120
ctggatgaat caacgagtga atgaagagat ggcttataaa taaatatttc tga 173

<210> 2103
<211> 5033
<212> DNA
<213> Homo sapiens

<400> 2103
cgcagaacca ggaaagtaac ggctacagac agtgagaaat agtttcgctc gccggctaga 60
aaaactctgt cggtaccaac cccagagcgt tgagagcagc ccacctccac gcttccttaa 120
cggagaggtg caggactcag acttcaccag cccactcggt cccagccttg tacgcaaaga 180
gacgccaagg acgcgctctc ccgcgtccag gcagccccag cttgctggct tgcctgcccg 240
cctgcgtgca gcactcggcc ggcgtgcagc atgaccctgt ggaacggcgt actgcctttt 300
tacccccagc cccggcatgc cgcaggcttc agcgttccac tgctcatcgt tattctagtg 360
tttttggctc tagcagcaag cttcctgctc atcttgccgg ggatccgtgg ccactcggta 420
agggtgtcct catagtgcag gtagagtggg ggaaggctca tgggcagatt gtctcctgag 480
ggacccagga caggtaagac tgtacaagag cctccatgaa tagtcgaatt gaggctcagg 540
tggagtgaag tcaggagtct ggtgcagcaa gcaccccttt ccaaggatag ggagagctcc 600
ccatccagga tatcctggag aaggacccca gctgggtcct tgggaaggct gctgcagaga 660
atgggcaccc agtccagtaa tcctgaggaa cagtataggc ttcttgtgct ggagggcctc 720
ccacctctcc caggactaaa gctgcactct catcccatcc ggtgggtgat gaccttcagg 780
ccaaaaggac agatgccagc agctcagact gcagtgttcc cctttgcact gggttgagac 840
acatgtgtat gggtgcctca tcctcaggac tgagactccc acattggatt agaagttgga 900
gccaactggg tgcattgtct tagactttcc ccctctccca gaacctaggt tgtgcatttt 960
tcagttctgg gaggacccag cttttctgca tcttaatctg tgttgctttc cctggaactg 1020
gtgcacctag gagtatctgc attcccacct cctcccctcg gagatcaggc tggggcctcc 1080
ctcttctgag ggaggtgacc cctgcgtgcc tagcacttct ggactcactg agcctcacca 1140
agcagtgact ggaccaggag gcagaaccag gaccaggcgc cagacagcta ggggagtgaa 1200
ggtggtggaa gagtgccagg aagtgggggt ggaggggagg tgctgttagg gtagatggga 1260
aatggggcta gggaggtgaa agtgcgtggt cacaaaatat cagaaatgcc agtagcccag 1320
agggacttgc aggaaaagcg tgcctaacat tagtctcaaa agtctggata taactaaaga 1380
tccaggtgaa gtggggtcaa gggtggtctt ggggactctg gtttggcagg gctcaggcct 1440
gacccgggtg cctattcctg cagcgctggt tttggttggt gagagttctt ctcagtctgt 1500
tcataggcgc agaaattgtg ggtgagtgtg tggtgcagcc catggggaga ggacggggtg 1560
aggaaggagg tgggcagagg gcacctggga caatagggaa ctggggttgg ttttctgctc 1620
cctcttccca ctctccagct ccttctaggg cccacttttt ggcccttacc atgcaaccac 1680
attggacctc taagtcccca tctctctgca gtgtcccacc tcccatacca ctctctaatt 1740

ccattttccc accctcatcc cacccccacc gtgtgccttt ccctacagct gtgcacttca 1800
gtgcagaatg gttcgtgggt acagtgaaca ccaacacatc ctacaaagcc ttcagcgcag 1860
cgcgcgttac agcccgtgtc cgtctgctcg tgggcctgga gggcattaat attacactca 1920
caggtgaggg ggctggggct aaatgaactc ctggagctgg gagatccccg gttaggtgag 1980
tgtgtcaggg atagctggag ggcctctcac atcccacaag ctcaaatagc ttgtggtcct 2040
cgtggatttg cgttttctcc aaccaccacc gaacccattt ctcccgccga gagcgccaca 2100
cccccacttt cctgtctgaa tccgcttagt tgcgaggtct ccgaccgcgg gcagccccat 2160
gagcccgcct caccccacag ggaccccagt gcatcagctg aacgagacca ttgactacaa 2220
cgagcagttc acctggcgtc tgaaagagaa ttacgccgcg gagtacgcga acgcactgga 2280
gaaggggctg ccggacccag tgctctacct ggcggagaag ttcacaccga gtagcccttg 2340
cggcctgtac caccagtacc acctggcggg acactacgcc tcggccacgc tatggtaagt 2400
gctggaggga aggctgtgtg cacgtgtgtg tgtgccagga gctgggccgt atgagcggga 2460
ggatgcaggc ctcggaggcg ctgagcagct gcagccagac ccgacgcgct cggggtgggc 2520
atgacagcct cgcgggttag aagatccacg agatctgcac agacggaatc cggagagact 2580
ccagccaccg cctggacctc aggagcccgc ttctcccccg gggaattccc ctgcaccgct 2640
gccatcccag tccctggctt tgacgctggg gtagggataa agaagagcgc agctgtggga 2700
accccggtgg gctgggagaa gcccgctcac agcgggtccc cccactcccc ggcagggtgg 2760
cgttctgctt ctggctcctc tccaacgtgc tgctctccac gccggccccg ctctacggag 2820
gcctggcact gctgaccacc ggagccttcg cgctcttcgg ggtcttcgcc ttggcctcca 2880
tctctagcgt gccgctctgc ccgctccgcc taggctcctc cgcgctcacc actcagtacg 2940
gcgccgcctt ctgggtcacg ctggcaaccg gtgaggaccg agagaatggg ccccgggggc 3000
taagggtgga gacaggattc acaccgggtg tgcactttcc agtttacaga atgaattcac 3060
atctattacc ctatttgccc ctctcaatag ttcgcagaaa caggcactgt tatgaccatt 3120
ttacagatga aaagtggggg gctcagaagg gtttggtgtc ttgccgtgtt tcatgtaatt 3180
cagattagag gtgtgtggcg ggaggtaaca caaggggtag gctccaaaag atggaagaag 3240
gcccgggcat cacgcctgta atcccagcac tttgggaggt cgaggcagga aggtcgtttg 3300
aggccagagt tcgagaccag cctgggcaac atagccctga ctccacatgc cctcctttct 3360
ttcgatcccc accgccacag gcgtcctgtg cctcttcctc ggaggggccg tggtgagtct 3420
ccagtatgtt cggcccagcg ctcttcgcac ccttctggac caaagcgcca aggactgcag 3480
ccaggagaga gggggctcac ctcttatcct cggcgaccca ctgcacaagc aggccgctct 3540
cccagactta aaatgtatca ccactaacct gtgaggggga cccaatctgg actccttccc 3600
cgccttggga catcgcaggc cgggaagcag tgcccgccag gcctgggcca ggagagctcc 3660
aggaagggca ctgagcgctg ctggcgcgag gcctcggaca tccgcaggca ccagggaaag 3720
tctcctgggg cgatctgtaa ataaaccttt ttttcttttg ttttttaaaa actgtttttc 3780
ccattaattt tcatggcttc tccgcgccgg ggtcgcacgt cctcatgagc ttcgctgggc 3840
tggagacagc ctagtacact ctccgcagtg ctgtgaaacc tgattctctg cgtcgactcc 3900
agagtaatag gggcgccctc tagtgaggcc ggagggaccc taccagagct agcatctttc 3960
tgaaccaccc caggggacg ttaggtggca gtgatgaggc aggtcaccca ctcccccgtc 4020
ctggatgcca ctcagctagc ccagctgagt ggggtgggaa ggaatagcgt tttggagttg 4080
attccctaac ttcccacctg gcttcttgtg aggtggtgtt tgagggccaa ggtaggtgtc 4140
agcaaggcat agaaagataa atcccaagat tcttggcaag tcttgcaatc ttatgtagca 4200
aatttgggaa ctgaagctca aagagaatgt ggcatagttg gttaatgtta gacctaggat 4260
gagaagtttg gtttcccctc ctttccagtg ctgtctttca ttgtaccaaa aggccacaca 4320
agctggagaa gtaaaggaag aacaaaagga acccaggaaa aaggaaaaca agaggtgccg 4380
agggatgaga ggaaaccata ggagaatcat atgtaacccc caccctgctg gtgttatggg 4440
ggtgaagtta ggtttcagtg aatagcatct tgaagaggca aggcagcacg gaaaggctgg 4500
gttgctgtgc agataagcta gcccctgctt ggccttatca tggcaacagg ctttatggac 4560
aggcccagca tctcttcagt cccttagggc tttttgtttt gttttgtttt ttaacatcag 4620
tatatagagc ctccttttte tactccgtct gtagattggt gctgggtgtc tggtaacagc 4680
caccctgagg gcagttctgc tggttttatg gggcgccaat gaggtttgga gccagactgg 4740
aagtccaggt ggcctccacg gggaggaatg ttataaagca caatcaggat ctttggggtg 4800
tgcctcctta cagtatgcct tggtggagga agcctctgac aggggaatgt cctgggactt 4860
gggactgtca gccatggacc ggtagcgggg gctcaggagt ccaccttcct caggactcca 4920
ctccagcatg gggtcttcat ccacactctg gttgaagaaa gccttcagcc tgtgaggctg 4980
catcctgtgg gccaccgcca tagccaggcc cagcagcaca cacagcagtc ctg 5033

<210> 2104
<211> 134
<212> DNA
<213> Homo sapiens

<400> 2104
cccgacctgc agcccaatat cagcgctgat ccactcagaa ctgaaggcct tgtatgatgt 60
gttggtgctg acctggccca cagaccactc agaactgaaa ttcacagctg tggttgggga 120
gttggacata tggg 134

<210> 2105
<211> 5533
<212> DNA
<213> Homo sapiens

<400> 2105
ctacacagaa gacccaaggc tgcgatgctg gatacctcaa tttgggagct ggagactgga 60
tatgcaggat tgagttattt gagctgagaa cccaagaagg gctggcaata gctgaaggct 120
tgagtgtgtg ttaaatctga gaagtggaac cttgacctct ctcatcacaa tggttcacct 180
cccgagccac cccaacacac atacccctttt ccttacctgc tttccacttc cctcaggctg 240
agctccaagt ggcacaacag gagaaccatc acttaaattt ggacctgaag gaggcgaaga 300
gctggcaaga ggagcagagt gctcaggctc agcgactgaa agacaaggtg gcccagatga 360
aggacaccct aggccaggcc cagcagcggg tggtgagtga ggccccttgg caacaggaaa 420
cgggaaattc caagggcaag ttgtagagaa gcctgcgtgt ctaaagagaa ggggagagac 480
atggctaaag actaaacaac acaaccccga gtcctaatgc agtggagtgg agggagcgtt 540
tacctccctg gctgatgaat gattcactag gaactctgat ctccatctcc tcctttctcc 600
tgaggccgag ctggagccct tgaaggagca gcttcgaggg gccaggagct tgcagcctca 660
agccagcaga aagccaccct tcttggggag gagttggcca gtgcagcagc agccagggac 720
cgcaccatag ccgaactaca ccgcagccgc ctggaagtgg ctgaagttaa cggcaggctg 780
gctgagctcg gtttgcactt gaaggaagaa aaatgccaat ggagcaagga gcgggcaggg 840
ctgctgcaga gtgtggaggt agagggatgg ggggtacctg gcaatctgat ggccactgcc 900
cccacctctg tggggactcc tacatgtggt cagaccctct gggaggagag aagaggggtt 960
gagaacctta gaggacttgg gtggagaggg gctttgaggg aggtacactt tactttctag 1020
gcatgaccca tccctaaccg gggtatccca atcctgatca ccagagtacc ttccttggaa 1080
cagaaacatt ttctgtccta gaccccaggc cctgccataa tgcccattcc tgatcaagca 1140
gcacctgccg tcatgtcctg tccttcattc agagggtata ggaaatgaag gcaaaaaggg 1200
gaaagtgctc taaaaatgat gctttaaata aaggaaagga cacagtaagg gatggtgctg 1260
ttgacagtgg cgttcctttt tcttcccccc ccaccctccc attttccttc ttggctatct 1320
ctcaggcaga gaaggacaag atcctgaagc tgagtgcaga gatacttcga ttggagaagg 1380
cagttcagga ggagaggacc caaaaccaag tgttcaagac tgagctggcc cgggagaagg 1440
attctagcct ggtgaggcat ccagccacca agggtcctgt cctatggcct cctgaggcat 1500
ccataccccc tctctctgtc ttgggtatgg gctcagaagt gctaggtgtc cactaccatg 1560
ttgggtggca tttcacttgc acacgcaagc cctcattggt ttgaaatgtg catttttttc 1620
tgctctcagg gcacacatct gggcccagta gaggtgactt aggagaatta tagagtggcc 1680
ccttggtatg accaaggcct ctgcacccca gcctagagga agtcatgcag gtccccactc 1740
gagaggcaga gactaagact tagaaaactg agtatctgtg gcccaagaca aagtactcat 1800
ggaggaagtg ttgggaattc ctgtgtgtgt gtgtcagagc agggaagaag cagaggcatg 1860
gggagacctg gttctagatt gttggtcctg gtcccagagt ccaggttctt ggaggtacat 1920
tctaggctcc agattccatt gggccctctt ccctcaggta cagttgtcag aaagtaagcg 1980
ggagctgaca gagctgcggt cagccctgcg tgtgctccag aaggaaaagg agcagttaca 2040
ggaggagaaa caggtgagca cccataaccc aggccccgtg gatgccacag gtgaggactt 2100
gagggctaga aactttgtaa attcctgtca tctcttggct tagaaactgt tctctccaag 2160
agggcccgta ccctggcttc tcttattagc tgatttggca ggacagcgga tgatctctgg 2220
gagaagggag ggatgtaagt ggtgaagcag gggtgctggg gggagtgtct gcctgaagtt 2280
gccccaatct ttgctgaagg catctaatgc tgaggagcta agagttcttc ttgggtgcag 2340
cttctgcagg ctagcaaggt tggcaccttc ccattctcta gcacctgcct ttttccttcc 2400
caattccagg aattgctaga gtacatgaga aagctagagg cccgcctgga gaaggtggca 2460
gatgagaagt ggaatgagga tgccaccaca gaggatgagg aggccgctgt ggggctgagt 2520
ccgtgtagcc ccaatcttgt aacacctctt ccccactcta cctcccgctg ttgaggaagg 2580
ctccatgtaa ccttgctggg agctgccttt gccttctatg tgttttgcct tttctttcca 2640
gcacctggcc cctgtatagt ctaatgatac cctcatccag aggagacagc tggtccaact 2700
cctcacaaca catccttttt tcttctctgc ctgcttcatc tcctacaggc tgcccggcag 2760
ctctgacaga ctcagaggac gagtccccag aagacatgag gctcccaccc tatggccttt 2820
gtgagcgtgg agacccaggc tcctctcctg ctgggcctcg agaggcttct ccccttagtt 2880

Docket No. 50370-2005

EP 1 074 617 A2

gtcatcagcc agccggctcc catttctcct cacctctctg ggccagctga ggacagtagc 2940
tctgactcgg tgagcagtgg aggagcctgt gcagaagcag taaggagggg cagggccaaa 3000
cccaagtgtc ccagcctgga gtgcagcacg atcttggctc actgcagcct ctgcctcctg 3060
ggctgaagcg atcctcccac ctcagtctcc caagagtagc tgggaccaca ggcaggcacc 3120
cccggctaat tagagaagga atcttagcta tccagggctc tctttttccc aggggagagg 3180
aggcaggccc agcctctctt cagtgccaca ccagtagata tcatcccaaa acccagacca 3240
gcccaatagc ctcactgctt ctcccccaca gtcattctct tattattcac cagcccctca 3300
aaacgcctct cctgcctcac tcttcctaag cccctcaggt cactgtccta gccttggctg 3360
ctcttcccat acctgtccca atgtgctgct cccccatctt gggacaccac cccaaagccc 3420
aaccctgtct ctttggcatc caggaggctg aagatgagaa gtcagtcctg atggcagctg 3480
tgcagagtgg gggtgaggag gccaacttac tgcttcctga actgggcagt gccttctatg 3540
acatggccag gtgagttcaa ccagcaaggc caggagggag gtgggaggag gtcagaggga 3600
aagggcatct gtgtggacag tcaccaggcc ctgctcccaa cccctgccct tcttggcctc 3660
agccaagaaa aggagataca ggtatggtta acaaggaaaa tgactcactg ctccaaatcc 3720
cagatgcctt caggtaatcc ctacccctat cttatcaatg cactcagagg tcctgccttt 3780
aactggcttc tatgttgttc tagcaccatc ttctgcagag cccaaattgc cctgcttccc 3840
ctctctcctg cctctacccc ttccccaacc accaggtagg tacctagggt cctccgggga 3900
ggaagggagg tgaccatggc ccccagggat aggagcagag agaagactgg gatccagcat 3960
ccatctggct acaactgaaa tgctttccct cttccctgac ttccctgggt aacccttagg 4020
gaagggaacc tatagaggtg ggggtttcag gtatcagatt gtccccttct gccttccctt 4080
ttattcccag gttcaagggg gcaggcacag ggaagagaga tttgatcatc tagtcccggt 4140
tttgcctgga tgtgagatgg gctcagggca gggagggggt gatgctgtca tccttctcgg 4200
ctggagcagg aagatgaagg acgatgtcag actcatttтc agcctcatta ggcagcagac 4260
ggagatggag ggaggagagc aggaggctgg gggatgggct ctgcactgca gagaccagca 4320
gggactaaag aagagaggac atggggaact ggaaaaataa gccttccagg attgtgggga 4380
gaaagacgct gtgggagagg ccaggatgct gcattaggca caggataacc tgggaaccca 4440
ggcacatggg tcctgctctc cgaagtctgc aagtcaagaa gggaacagag cacgccgacc 4500
ctctcccttt cccctctgtc tctcttagtg gctttacagt gggtaccctg tcagaaacca 4560
gcactggggg ccctgccacc cccacatgga aggagtgtcc tatctgtaag gagcgctttc 4620
ctgctgagag tgacaaggat gccctggagg accacatgga tggacacttc tttttcagca 4680
cccaggaccc cttcaccttt gagtgatctt actccctcgt acatgcacaa atacacactc 4740
atgcacacac acactcacac acatgcatac acttaggttt catgcccatt ttctatcaca 4800
ctgggctcca tgatattctg ttccctaaga actgcttctg tgtgccctgt tttcatccca 4860
agatttctca cttcatcctc tcctacctgg ctcttttgtc ccagggaggg gtcctgttcg 4920
gaagcagtgg ctgaatttat cccctgaaag tggttttgga ggaaccggga tggaggaggc 4980
cttcccctgt gggaatagaa tcgtccactc ctagccctgg ttgcttctga tacacagcca 5040
ctgcacacac acactcacac tcacactccc ttgtctgatg ccccaaagcc aattcctggg 5100
gcaccctacc ctctcttatt tggagtttcc gttggtttac ctgagttttc tctggggtct 5160
gcacagaggc agcagcatgg acatcatggc ctctcaggtc ccttttggtt ctcagtttca 5220
ttggttcctc tttctgttcc cccattgact tctgtgcccc accctagcct tttccataac 5280
cttaggtatt cagtttggag gggtttttтg tatttttgag gattcctgta ttctgtatcc 5340
tctcctcgca tctcctcaca tggaaagaaa taatgtattt gtgccttctg tgaggaatgg 5400
gggaacaagt gtcccaggta tccccatttc caaggccccc ctccctctcc aggtcccccc 5460
acagcaataa aagcttcccc ctgatatcca tccctttgta gtttgaacaa atatatttat 5520
atgatatgta tga 5533

<210> 2106
<211> 5543
<212> DNA
<213> Homo sapiens

<400> 2106
ctacacagaa gacccaaggc tgcgatgctg gatacctcaa tttgggagct ggagactgga 60
tatgcaggat tgagttattt gagctgagaa cccaagaagg gctggcaata gctgaaggct 120
tgagtgtgtg ttaaatctga gaagtggaac cttgacctct ctcatcacaa tggttcacct 180
cccgagccac cccaacacac ataccccttt ccttacctgc tttccacttc cctcaggctg 240
agctccaagt ggcacaacag gagaaccatc acttaaattt ggacctgaag gaggcgaaga 300
gctggcaaga ggagcagagt gctcagggct cagcgactga aagacaaggt ggcccagatg 360
aaggacaccc taggccaggc ccagcagcgg gtggtgagtg aggccccttg gcaacaggaa 420
acgggaaatt ccaagggcaa gttgtagaga agcctgcgtg tctaaagaga aggggagaga 480

09500882 - 092204

```
catggctaaa gactaaacaa cacaaccccg agtcctaatg cagtggagtg gagggagcgt   540
ttacctccct ggctgatgaa tgattcacta ggaactctga tctccatctc ctcctttctc   600
ctgaggccga gctggagccc ttgaaggagc agcttcgagg ggcccaggag cttgcagcct   660
caagccagca gaaagccacc cttcttgggg aggagttggc cagtgcagca gcagccaggg   720
accgcaccat agccgaacta caccgcagcc gcctggaagt ggctgaagtt aacggcaggc   780
tggctgagct cggtttgcac ttgaaggaag aaaaatgcca atggagcaag gagcgggcag   840
ggctgctgca gagtgtggag gtagagggat gggggggtacc tggcaatctg atggccactg   900
cccccacctc tgtggggact cctacatgtg gtcagaccct ctgggaggag agaagagggg   960
ttgagaacct tagaggactt gggtggagag gggctttgag ggaggtacac tttactttct  1020
aggcatgacc catccctaac cggggtatcc caatcctgat caccagagta ccttccttgg  1080
aacagaaaca ttttctgtcc tagaccccag gccctgccat aatgcccatt cctgatcaag  1140
cagcacctgc cgtcatgtcc tgtccttcat tcagagggta taggaaatga aggcaaaaag  1200
gggaaagtgc tctaaaaatg atgctttaaa taaaggaaag gacacagtaa gggatggtgc  1260
tgttgacagt ggcgttcctt tttcttcccc ctccaccctc ccattttcct tcttggctat  1320
ctctcaggca gagaaggaca agatcctgaa gctgagtgca gagatacttc gattggagaa  1380
ggcagttcag gaggagagga cccaaaacca agtgttcaag actgagctgg cccgggagaa  1440
ggattctagc ctggtgaggc atccagccac caagggtcct gtcctatggc ctcctgaggc  1500
atccataccc cttctctctg tcttgggtat gggctcagaa gtgctaggtg tccactacca  1560
tgttgggtgg catttcactt gcacacgcaa gccctcattg gtttgaaatg tgcatttttt  1620
tctgctctca gggcacacat ctgggcccag tagaggtgac ttaggagaat tatagagtgg  1680
ccccttggta tgaccaaggc ctctgcaccc cagcctagag gaagtcatgc aggtccccac  1740
tcgagaggca gagactaaga cttagaaaac tgagtatctg tggcccaaga caaagtactc  1800
atggaggaag tgttgggaat tcctgtgtgt gtgtgtcaga gcagggaaga agcagaggca  1860
tggggagacc tggttctaga ttgttggtcc tggtcccaga gtccaggttc ttggaggtac  1920
attctaggct ccagattcca ttgggccctc ttccctcagg tacagttgtc agaaagtaag  1980
cgggagctga cagagctgcg gtcagccctg cgtgtgctcc agaaggaaaa ggagcagtta  2040
caggaggaga aacaggtgag cacccataac ccaggccccg tggatgccac aggtgaggac  2100
ttgagggcta gaaactttgt aaattcctgt catctcttgg cttagaaact gttctctcca  2160
agagggcccg taccctggct tctcttatta gctgatttgg caggacagcg gatgatctct  2220
gggagaaggg agggatgtaa gtggtgaagc aggggtgctg gggggagtgt ctgcctgaag  2280
ttgccccaat ctttgctgaa ggcatctaat gctgaggagc taagagttct tcttgggtgc  2340
agcttctgca ggctagcaag gttggcacct tcccattctc tagcacctgc ctttttcctt  2400
cccaattcca ggaatcgcta gagtacatga gaaagctaga ggcccgcctg gagaaggtgg  2460
cagatgagaa gtggaatgag gatgccacca cagaggatga ggaggccgct gtggggctga  2520
gtccgtgtag ccccaatctt gtaacacctc ttccccactc tacctcccgc tgttgaggaa  2580
ggctccatgt aaccttgctg ggagctgcct ttgccttcta tgtgttttgc cttttctttc  2640
ccagaccctg gcccctgttt agtctaatga tacccctcat ccagaggaga cagctggtcc  2700
aactcctcac aacacatcct tttttcttct ctgcctgctt catctcctac aggctgcccg  2760
gcagctctga cagactcaga ggacgagtcc ccagaagaca tgaggctccc accctatggc  2820
ctttgtgagc gtggagaccc aggctcctct cctgctgggc ctcgagaggc ttctcccctt  2880
gttgtcatca gccagccggc tcccatttct cctcacctct ctgggccagc tgaggacagt  2940
agctctgact cggtgagcag tggaggagcc tgtgcagaag cagtaaggag gggcagggcc  3000
aaacccaagt gtcccagcct ggagtgcagc accgatcttg gctcactgca gcctctgcct  3060
cctgggctga agcgatcctc ccacctcagt ctcccgagag tagctgggac cacaggcagg  3120
caccccggc taattagaga aggaatctta gctatccagg gctctctttt tcccagggga  3180
gaggaggcag gcccagcctc tcttcagtgc cacaccagta gatatcatcc caaaacccag  3240
accagcccaa tagcctcact gcttctcccc cacagtcatt ctcttattat tcaccagccc  3300
ctcaaaacgc ctctcctgcc tcactcttcc taagcccctc aggtcactgt cctagccttg  3360
gctgctcttc ccatacctgt cccaatgtgc tgctccccca tcttgggaca ccaccccaaa  3420
gcccaaccct gtctctttgg catccaggag gctgaagatg agaagtcagt cctgatggca  3480
gctgtgcaga gtgggggtga ggaggccaac ttactgcttc ctgaactggg cagtgccttc  3540
tatgacatgg ccaggtgagt tcaaccagca aggccaggag ggaggtggga ggaggtcaga  3600
gggaaagggc atctgtgtgg acagtcacca ggccctgctc ccaacccctg cccttcttgg  3660
cctcagccaa gaaaaggaga tacaggtatg gttaacaagg aaaatgactc actgctccaa  3720
atcccagatg ccttcaggta atccctaccc ctatcttatc aatgcactca gaggtcctgc  3780
ctttaactgg cttctatgtt gttctagcac catcttctgc agagcccaaa ttgccctgct  3840
tcccctctct cctgcctcta ccccttcccc aaccaccagg taggtaccta gggtcctccg  3900
gggaggaagg gaggtgacca tggcccccag ggataggagc agagagaaga ctgggatcca  3960
gcatccatct ggctacaact gaaatgcttt ccctcttccc tgacttccct gggtaaccct  4020
tagggaaggg aacctataga ggtgggggtt tcaggtatca gattgtcccc ttctgccttc  4080
ccttttattc ccaggttcaa gggggcaggc acagggaaga gagatttgat catctagtcc  4140
```

cggttttgcc tggatgtgag atgggctcag ggcagggagg gggtgatgct gtcatccttc 4200
tcggctggag caggaagatg aaggacgatg tcagactcat tttcagcctc attaggcagc 4260
agacggagat ggagggagga gagcaggagg ctgggggatg ggctctgcac tgcagagacc 4320
agcagggact aaagaagaga ggacatgggg aactggaaaa atagccttcc aggattgtgg 4380
ggagaaagac gctgtgggag aggccaggat gctgcattag ggcacaggat aacctgggaa 4440
cccaggcaca tgggtcctgc tctccgagtc tgcaagtcaa gaagggaaca gagcacgccg 4500
accctctccc tttcccctct gtctgctgct tagtggcttt gcagtgggtg ccctgtcaga 4560
agccaggctc tgggggccct gccgccccca catggaagga gtgtcctatc tgtaaggagc 4620
gctttcctgc tgagagtgac aaggatgccc tggaggacca catggatgga cacttctttt 4680
tcagcaccca gggccccttc acctttgagt gatcttactc cctcgtacat gcacaaatac 4740
acactcatgc acacacacac tcacacaaca tgcatacact taggtttcat gcccattttc 4800
tatcacactg ggctccatga tattctgttc cctaagaact gcttctgtgt gccctgtttt 4860
catcccaaga tttctcactt catcctctcc tacctggctc ttttgtccca gggaggggtc 4920
ctgttcggaa gcagtggctg aatttatccc ctgaaagtgg ttttggagga accgggatgg 4980
aggaggcctt cccctgtggg aatagaatcg tccactccta gccctggttg cttctgatac 5040
acagccactg cacacacaca ctcacactca cactcccttg tctgatgccc caaagccaat 5100
tcctggggca ccctaccctc tcttatttgg agtttccgtt ggtttacctg agttttctct 5160
ggggtctgca cagaggcagc agcatggaca tcatggcctc tcaggtccct tttggttctc 5220
agtttcattg gttcctcttt ctgttccccc attgacttct gtgccccacc ctagcctttt 5280
ccataacctt aggtattcag tttggagggg ttttttggat ttttgaggat tcctgtattc 5340
tggatcctct cctcgcatct cctcacatgg aaagaaaata atgtatttgt gccttctgtg 5400
aggaatgggg ggaacaagtg gtcccaggta tccccatttc caaggccccc ctccctctcc 5460
aggtcccccc acagcaataa aagcttcccc ctgatatcca tccctttgta gtttgaacaa 5520
atatatttat atgatatgta tga 5543

<210> 2107
<211> 5538
<212> DNA
<213> Homo sapiens

<400> 2107
ctacacagaa gacccaaggc tgcgatgctg gatacctcaa tttgggagct ggagactgga 60
tatgcaggat tgagttattt gagctgagaa cccaagaagg gctggcaata gctgaaggct 120
tgagtgtgtg ttaaatctga gaagtggaac cttgacctct ctcatcacaa tggttcacct 180
cccgagccac cccaacacac ataccccttt ccttacctgc tttccacttc cctcaggctg 240
agctccaagt ggcacaacag gagaaccatc acttaaattt ggacctgaag gaggcgaaga 300
gctggcaaga ggagcagagt gctcaggctc agcgactgaa agacaaggtg gcccagatga 360
aggacaccct aggccaggcc cagcagcggg tggtgagtga ggccccttgg caacaggaaa 420
cgggaaattc caagggcaag ttgtagagaa gcctgcgtgt ctaaagagaa ggggagagac 480
atggctaaag actaaacaac acaaccccga gtcctaatgc agtggagtgg agggagcgtt 540
tacctccctg gctgatgaat gattcactag gaactctgat ctccatctcc tcctttctcc 600
tgaggccgag ctggagccct tgaaggagca gcttcgaggg gcccaggagc ttgcagcctc 660
aagccagcag aaagccaccc ttcttgggga ggagttggcc agtgcagcag cagccaggga 720
ccgcaccata gccgaactac accgcagctg cctggaagtg gctgaagtta acggcaggct 780
ggctgagctc ggtttgcact tgaaggaaga aaaatgccaa tggagcaagg agcgggcagg 840
gctgctgcag agtgtggagg tagagggatg gggggtacct ggcaatctga tggccactgc 900
ccccacctct gtggggactc ctacatgtgg tcagaccctc tgggaggaga gaagaggggt 960
tgagaacctt agaggacttg ggtggagagg ggctttgagg gaggtacact ttactttcta 1020
ggcatgaccc atccctaacc ggggtatccc aatcctgatc accagagtac cttccttgga 1080
acagaaacat tttctgtcct agaccccagg ccctgccata atgcccattc ctgatcaagc 1140
agcacctgcc gtcatgtcct gtccttcatt cagagggtat aggaaatgaa ggcaaaaagg 1200
ggaaagtgct ctaaaaatga tgctttaaat aaaggaaagg acacagtaag ggatggtgct 1260
gttgacagtg gcgttccttt ttcttccccc tccaccctcc cattttcctt cttggctatc 1320
tctcaggcag agaaggacaa gatcctgaag ctgagtgcag agatacttcg attggagaag 1380
gcagttcagg aggagaggac ccaaaaccaa gtgttcaaga ctgagctggc ccgggagaag 1440
gattctagcc tggtgaggca tccagccacc aagggtcctg tcctatggcc tcctgaggca 1500
tccataccc ttctctctgt cttgggtatg ggctcagaag tgctaggtgt ccactaccat 1560
gttgggtggc atttcacttg cacacgcaag ccctcattgg tttgaaatgt gcatttttt 1620
ctgctctcag ggcacacatc tgggcccagt agaggtgact taggagaatt atagagtggc 1680
cccttggtat gaccaaggcc tctgcacccc agcctagagg aagtcatgca ggtccccact 1740

09650082 - 091200

WO 02/40544 PCT/US01/50875

```
cgagaggcag agactaagac ttagaaaact gagtatctgt ggcccaagac aaagtactca   1800
tggaggaagt gttgggaatt cctgtgtgtg tgtgtcagag cagggaagaa gcagaggcat   1860
ggggagacct ggttctagat tgttggtcct ggtcccagag tccaggttct tggaggtaca   1920
ttctaggctc cagattccat tgggccctct tccctcaggt acagttgtca gaaagtaagc   1980
gggagctgac agagctgcgg tcagccctgc gtgtgctcca gaaggaaaag gagcagttac   2040
aggaggagaa acaggtgagc acccataacc caggccccgt ggatgccaca ggtgaggact   2100
tgagggctag aaactttgta aattcctgtc atctcttggc ttagaaactg ttctctccaa   2160
gagggcccgt accctggctt ctcttattag ctgatttggc aggacagcgg atgatctctg   2220
ggagaaggga gggatgtaag tggtgaagca ggggtgctgg ggggagtgtc tgcctgaagt   2280
tgccccaatc tttgctgaag gcatctaatg ctgaggagct aagagttctt cttgggtgca   2340
gcttctgcag gctagcaagg ttggcacctt cccattctct agcacctgcc tttttccttc   2400
ccaattccag gaattgctag agtacatgag aaagctagag gcccgcctgg agaaggtggc   2460
agatgagaag tggaatgagg atgccaccac agaggatgag gaggccgctg tggggctgag   2520
tccgtgtagc cccaatcttg taacacctct tccccactct acctcccgct gttgaggaag   2580
gctccatgta accttgctgg gagctgcctt tgccttctat gtgttttgcc ttttctttcc   2640
cagaccctgg cccctgttta gtctaatgat acccctcatc cagaggagac agctggtcca   2700
actcctcaca acacatcctt ttttcttctc tgcctgcttc atctcctaca ggctgcccgg   2760
cagctctgac agactcagag gacgagtccc cagaagacat gaggctccca ccctatggcc   2820
tttgtgagcg tggagaccca ggctcctctc ctgctgggcc tcgagaggct tctccccttg   2880
ttgtcatcag ccagccggct cccatttctc ctcacctctc tgggccagct gaggacagta   2940
gctctgactc ggtgagcagt ggaggagcct gtgcagaagc agtaaggagg ggcagggcca   3000
aacccaagtg tcccagcctg gagtgcagca cgatcttggc tcactgcagc ctctgcctcc   3060
tgggctgaag cgatcctccc acctcagtct cccaagagta gctgggacca caggcaggca   3120
cccccggcta attagagaag gaatcttagc tatccagggc tctctttttc ccaggggaga   3180
ggaggcaggc ccagcctctc ttcagtgcca caccagtaga tatcatccca aaacccagac   3240
cagccccaat agcctcactg cttctccccc acagtcattc tcttattatt caccagcccc   3300
tcaaaacgcc tctcctgcct cactcttcct aagcccctca ggtcactgtc ctagccttgg   3360
ctgctcttcc catacctgtc ccaatgtgct gctcccccat cttgggacac caccccaaag   3420
cccaaccctg tctctttggc atccaggagg ctgaagatga gacagtcagt cctgatggca   3480
gctgtgcaga gtgggggtga ggaggccaac ttactgcttc ctgaactggc cagtgccttc   3540
tatgacatgg ccaggtgagt tcaaccagca aggccaggag ggcggtggga ggaggtcaga   3600
gggaaagggc atctgtgtgg acagtcacca ggccctgctc ccaacccctg cccttcttgc   3660
ctcagccaag aaaaggagat acaggtatgg ttaacaagga aaatgactca ctgctccaaa   3720
tcccagatgc cttcaggtaa tccctacccc tatcttatca atgcactcag aggtcctgcc   3780
tttaactggc ttctatgttg ttctagcacc atcttctgca gagcccaaat tgccctgctt   3840
cccctctctc ctgcctctac cccttcccca accaccaggt aggtacctag ggtcctccgg   3900
ggaggaaggg aggtgaccat ggcccccagg gataggagca gagagaagac tgggatccag   3960
catccatctg gctacaactg aaatgctttc cctcttccct gacttccctg ggtaaccctt   4020
agggaaggga acctatagag gtgggggttt caggtatcag attgtcccct tctgccttcc   4080
cttttattcc caggttcaag ggggcaggca cagggaagag agatttgatc atctagtccc   4140
ggttttgcct ggatgtgaga tgggctcagg gcagggaggg ggtgatgctg tcatccttct   4200
cggctggagc aggaagatga aggacgatgt cagactcatt ttcagcctca ttaggcagca   4260
gacggagatg gagggaggag agcaggaggc tgggggatgg gctctgcact gcagagacca   4320
gcagggacta aagaagagag gacatgggga actggaaaaa taagccttcc aggattgtgg   4380
ggagaaagac gctgtgggag aggccaggat gctgcattag gcacaggata acctgggaac   4440
ccaggcacat gggtcctgct ctccgaagtc tgcaagtcaa gaagggaaca gagcacgccg   4500
accctctccc tttcccctct gtctctctta gtggctttac agtgggtacc ctgtcagaaa   4560
ccagcactgg gggccctgcc acccccacat ggaaggagtg tcctatctgt aaggagcgct   4620
ttcctgctga gagtgacaag gatgccctgg aggaccacat ggatggacac ttctttttca   4680
gcacccagga ccccttcacc tttgagtgat cttactccct cgtacatgca caaatacaca   4740
ctcatgcaca cacacactca cacacatgca tacacttagg tttcatgccc attttctatc   4800
acactgggct ccatgatatt ctgttcccta agaactgctt ctgtgtgccc tgttttcatc   4860
ccaagatttc tcacttcatc ctctcctacc tggctctttt gtcccaggga ggggtcctgt   4920
tcggaagcag tggctgaatt tatcccctga aagtggtttt ggaggaaccg ggatggagga   4980
ggccttcccc tgtgggaata gaatcgtcca ctcctagccc tggttgcttc tgatacacag   5040
ccactgcaca cacacactca cactcacact cccttgtctg atgccccaaa gccaattcct   5100
ggggcaccct accctctctt atttggagtt tccgttggtt tacctgagtt ttctctgggg   5160
tctgcacaga ggcagcagca tggacatcat ggcctctcag gtccctttg gttctcagtt   5220
tcattggttc ctctttctgt tcccccattg acttctgtgc cccaccctag ccttttccat   5280
aaccttaggt attcagtttg gaggggtttt ttgtattttt gaggattcct gtattctgta   5340
tcctctcctc gcatctcctc acatggaaag aaataatgta tttgtgcctt ctgtgaggaa   5400
```

tgggggggaac aagtggtccc aggtatcccc atttccaagg ccccccctccc tctccaggtc 5460
cccccacagc aataaaagct tccccctgat atccatccct ttgtagtttg aacaaatata 5520
tttatatgat atgtatga 5538

<210> 2108
<211> 5537
<212> DNA
<213> Homo sapiens

<400> 2108
ctacacagaa gacccaaggc tgcgatgctg gatacctcaa tttgggagct ggagactgga 60
tatgcaggat tgagttattt gagctgagaa cccaagaagg gctggcaata gctgaaggct 120
tgagtgtgtg ttaaatctga gaagtggaac cttgacctct ctcatcacaa tggttcacct 180
cccgagccac cccaacacac ataccccttt ccttacctgc tttccacttc cctcaggctg 240
agctccaagt ggcacaacag gagaaccatc acttaaattt ggacctgaag gaggcgaaga 300
gctggcaaga ggagcagagt gctcaggctc agcgactgaa agacaaggtg gcccagatga 360
aggacaccct aggccaggcc cagcagcggg tggtgagtga ggccccttgg caacaggaaa 420
cgggaaattc caagggcaag ttgtagagaa gcctgcgtgt ctaaagagaa ggggagagac 480
atggctaaag actaaacaac acaaccccga gtcctaatgc agtggagtgg agggagcgtt 540
tacctccctg gctgatgaat gattcactag gaactctgat ctccatctcc tcctttctcc 600
tgaggccgag ctggagccct tgaaggagca gcttcgaggg gcccaggagc ttgcagcctc 660
aagccagcag aaagccaccc ttcttgggga ggagttggcc agtgcagcag cagccaggga 720
ccgcaccata gccgaactac accgcagccg cctggaagtg gctgaagtta acggcaggct 780
ggctgagctc ggtttgcact tgaaggaaga aaaatgccaa tggagcaagg agcgggcagg 840
gctgctgcag agtgtggagg tagagggatg gggggtacct ggcaatctga tggccactgc 900
ccccacctct gtggggactc ctacatgtgg tcagaccctc tgggaggaga gaagaggggt 960
tgagaacctt agaggacttg ggtggagagg ggctttgagg gaggtacact ttactttcta 1020
ggcatgaccc atccctaacc ggggtatccc aatcctgatc accagagtac cttccttgga 1080
acagaaacat tttctgtcct agaccccagg ccctgccata atgcccattc ctgatcaagc 1140
agcacctgcc gtcatgtcct gtccttcatt cagagggtat aggaaatgaa ggcaaaaagg 1200
ggaaagtgct ctaaaaatga tgctttaaat aaaggaaagg acacagtaag ggatggtgct 1260
gttgacagtg gcgttccttt ttcttccccc tccaccctcc cattttcctt cttggctatc 1320
tctcaggcag agaaggacaa gatcctgaag ctgagtgcag agatacttcg attggagaag 1380
gcagttcagg aggagaggac ccaaaaccaa gtgttcaaga ctgagctggc ccgggagaag 1440
gattctagcc tggtgaggca tccagccacc aagggtcctg tcctatggcc tcctgaggca 1500
tccatacccc ttctctctgt cttgggtatg ggctcagaag tgctaggtgt ccactaccat 1560
gttgggtggc atttcacttg cacacgcaag ccctcattgg tttgaaatgt gcatttttt 1620
ctgctctcag ggcacacatc tgggcccagt agaggtgact taggagaatt atagagtggc 1680
cccttggtat gaccaaggcc tctgcacccc agcctagagg aagtcatgca ggtccccact 1740
cgagaggcag agactaagac ttagaaaact gagtatctgt ggcccaagac aaagtactca 1800
tggaggaagt gttgggaatt cctgtgtgtg tgtgtcagag cagggaagaa gcagaggcat 1860
ggggagacct ggttctagat tgttggtcct ggtcccagag tccaggttct tggaggtaca 1920
ttctaggctc cagattccat tgggccctct tccctcaggt acagttgtca gaaagtaagc 1980
gggagctgac agagctgcgg tcagccctgc gtgtgctcca gaaggaaaag gagcagttac 2040
aggaggagaa acaggtgagc acccataacc caggccccgt ggatgccaca ggtgaggact 2100
tgagggctag aaactttgta aattcctgtc atctcttggc ttagaaactg ttctctccaa 2160
gagggcccgt accctggctt ctcttattag ctgatttggc aggacagcgg atgatctctg 2220
ggagaaggga gggatgtaag tggtgaagca ggggtgctgg ggggagtgtc tgcctgaagt 2280
tgccccaatc tttgctgaag gcatctaatg ctgaggagct aagagttctt cttgggtgca 2340
gcttctgcag gctagcaagg ttggcacctt cccattctct agcacctgcc tttttccttc 2400
ccaattccag gaattgctag agtacatgag aaagctagag gcccgcctgg agaaggtggc 2460
agatgagaag tggaatgagg atgccaccac agaggatgag gaggccgctg tggggctgag 2520
tccgtgtagc cccaatcttg taacacctct tccccactct acctcccgct gttgaggaag 2580
gctccatgta accttgctgg gagctgcctt tgccttctat gtgttttgcc ttttctttcc 2640
cagaccctgg cccctgttta gtctaatgat acccctcatc cagaggagac agctggtcca 2700
actcctcaca acacatcctt ttttcttctc tgcctgcttc atctcctaca ggctgcccgg 2760
cagctctgac agactcagag gacgagtccc cagaagacat gaggctccca ccctatggcc 2820
tttgtgagcg tggagaccca ggctcctctc ctgctgggcc tcgagaggct tctccccttg 2880
ttgtcatcag ccagccggct cccatttctc ctcacctctc tgggccagct gaggacagta 2940
gctctgactc ggtgagcagt ggaggagcct gtgcagaagc agtaaggagg ggcagggcca 3000

09505.0108-00000

10/04/2004 05:50:08

aacccaagtg tcccagcctg gagtgcagca cgatcttggc tcactgcagc ctctgcctcc 3060
tgggctgaag cgatcctccc acctcagtct cccaagagta gctgggacca caggcaggca 3120
cccccggcta attagagaag gaatcttagc tatccagggc tctcttttc ccaggggaga 3180
ggaggcaggc ccagcctctc ttcagtgcca caccagtaga tatcatccca aaacccagac 3240
cagcccaata gcctcactgc ttctcccccа cagtcattct cttattattc accagcccct 3300
caaaacgcct ctcctgcctc actcttccta agcccctcag gtcactgtcc tagccttggc 3360
tgctcttccc atacctgtcc caatgtgctg ctccccccatc ttgggacacc accccaaagc 3420
ccaaccctgt ctctttggca tccaggaggc tgaagatgag aagtcagtcc tgatggcagc 3480
tgtgcagagt gggggtgagg aggccaactt actgcttcct gaactgggca gtgccttcta 3540
tgacatggcc aggtgagttc aaccagcaag gccaggaggg aggtgggagg aggtcagagg 3600
gaaagggcat ctgtgtggac agtcaccagg ccctgctccc aacccctgcc cttcttggcc 3660
tcagccaaga aaaggagata caggtatggt taacaaggaa aatgactcac tgctccaaat 3720
cccagatgcc ttcaggtaat ccctacccct atcttatcaa tgcactcaga ggtcctgcct 3780
ttaactggct tctatgttgt tctagcacca tcttctgcag agcccaaatt gccctgcttc 3840
ccctctctcc tgcctctacc ccttccccaa ccaccaggta ggtacctagg gtcctccggg 3900
gaggaaggga ggtgaccatg gcccccaggg ataggagcag agagaagact gggatccagc 3960
atccatctgg ctacaactga aatgctttcc ctcttccctg acttccctgg gtaaccctta 4020
gggaagggaa cctatagagg tgggggtttc aggtatcaga ttgtcccctt ctgccttccc 4080
ttttattccc aggttcaagg gggcaggcac agggaagaga gatttgatca tctagtcccg 4140
gttttgcctg gatgtgagat gggctcaggg cagggagggg gtgatgctgt catccttctc 4200
ggctggagca ggaagatgaa ggacgatgtc agactcattt tcagcctcat taggcagcag 4260
acggagatgg agggaggaga gcaggaggct gggggatggg ctctgcactg cagagaccag 4320
cagggactaa agaagagagg acatggggaa ctggaaaaat aagccttcca ggattgtggg 4380
gagaaagacg ctgtgggaga ggccaggatg ctgcattagg cacaggataa cctgggaacc 4440
caggcacatg ggtcctgctc tccgaagtct gcaagtcaag aagggaacag agcacgccga 4500
ccctctccct ttcccctctg tctctcttag tggctttaca gtgggtaccc tgtcagaaac 4560
cagcactggg ggccctgcca cccccacatg gaaggagtgt cctatctgta aggagcgctt 4620
tcctgctgag agtgacaagg atgccctgga ggaccacatg gatggacact tcttttcag 4680
cacccaggac cccttcacct ttgagtgatc ttactccctc gtacatgcac aaatacacac 4740
tcatgcacac acacactcac acacatgcat acacttaggt ttcatgccca ttttctatca 4800
cactgggctc catgatattc tgttccctaa gaactgcttc tgtgtgccct gttttcatcc 4860
caagatttct cacttcatcc tctcctacct ggctcttttg tcccagggag gggtcctgtt 4920
cggaagcagt ggctgaattt atcccctgaa agtggttttg gaggaaccgg gatggaggag 4980
gccttcccct gtgggaatag aatcgtccac tcctagccct ggttgcttct gatacacagc 5040
cactgcacac acacactcac actcacactc ccttgtctga tgccccaaag ccaattcctg 5100
gggcacccta ccctctctta tttggagttt ccgttggttt acctgagttt tctctggggt 5160
ctgcacagag gcagcagcat ggacatcatg gcctctcagg tccctttttgg ttctcagttt 5220
cattggttcc tctttctgtt cccccattga cttctgtgcc ccaccctagc cttttccata 5280
accttaggta ttcagtttgg aggggttttt tgtatttttg aggattcctg tattctgtat 5340
cctctcctcg catctcctca catggaaaga aataatgtat ttgtgccttc tgtgaggaat 5400
gggggggaaca agtggtccca ggtatcccca tttccaaggc ccccctccct ctccaggtcc 5460
ccccacagca ataaaagctt ccccctgata tccatccctt tgtagtttga acaaatatat 5520
ttatatgata tgtatga 5537

<210> 2109
<211> 436
<212> DNA
<213> Homo sapiens

<400> 2109
ggaaattaga gataatggat ctctcctctc tccatcccaa cccctcttta ttgatcctcc 60
tttaatgaaa gttaattata acaatgattt aattaataga atccctctct tcctttattg 120
cttcccgtat taagactatt aataaatacg agctgggctg acagaggcat ccatcacccg 180
cctgggattc cccccatccc tccttttacc ttccccccctc tccctctccc tctcttggcc 240
tataaacttg ccggggtagt gggggttaat cagagaggaa ttatgagcca acatccccag 300
caggaggtgc atttaatgaa atcatgtgtg atttattttc tgggggaggt tggggcgaga 360
agaatctggg acccacacct cctggcttcc agtgagtggc tgccttgtgc aaaaaaggag 420
aatagtagac aaacag 436

<210> 2110
<211> 368
<212> DNA
<213> Homo sapiens

<400> 2110
aaggcgagag gattgttcaa gcccaggggt tcaaaaccag cctgggcaac gtagtgagac 60
cccatctcta caaaaaattt taaaaattag ccaggcatgg tggcatgcac ctgtagtccc 120
agctactcag gaagctgagg tggaaggatt gcttgagccc aggaggtcaa ggctgcagtg 180
tgctgtgatc gcacccctga acttcagcct gggtgacaga gcaagattct gtctcagaaa 240
aaaaaggggt ggggtgtggg gcctagtact ttcaaacctt tttagcagaa ccctttcctc 300
tcctcccacc aataaagttt ttaatcttgt gtggaatctc actgaataaa caaaaacaat 360
gttttatt 368

<210> 2111
<211> 436
<212> DNA
<213> Homo sapiens

<400> 2111
ggaaattaga gataatggat ctctcctctc tccatcccaa cccctcttta ttgatcctcc 60
tttaatgaaa gttaattata acaatgattt aattaataga atccctctct tcctttattg 120
cttcccgtat taagactatt aataaatacg agctgggctg acagaggcat ccatcacccg 180
cctgggattc cccccatccc tccttttacc ttccccccctc tccctctccc tctcttggcc 240
tataaacttg ccggggtagt gggggttaat cagagaggaa ttatgagcca acatccccag 300
caggaggtgc atttaatgaa atcatgtgtg atttattttc tgggggaggt tggggcgaga 360
agaatctggg acccacacct cctggcttcc agtgagtggc tgccttgtgc aaaaaaggag 420
aatagtagac aaacag 436

<210> 2112
<211> 8896
<212> DNA
<213> Homo sapiens

<400> 2112
cggtggcggc tgtgtgtcgc cggagccgaa gcgcgcaggc ccgtcccggt ggccggggag 60
cgggcgggtg ggggcgccat gtggttcatg tacctgctga gctggctgtc gctcttcatc 120
caggtggcct tcatcacgct ggctgtcggt gagactgcac gaccccggcc cgcgcgggct 180
cccgccccgg catcggtgct cgttgggggt cgcatcgcgg gggtttcgga gccactcggg 240
ggaccactgc ccggcgctcc cggccttcgc cgccccaacc ccttcccgcc tgatcctgcc 300
cctcctgtcg agcctggcag cccggcctga ccgtggctcc ttccaggtgt cacagagtcc 360
gctccggcac tgcccgagaa agggtgactc gagtgccgcc cccgcgtctg cggaccgcta 420
accgctgcgg ctcccactct tcgcgggcct gccgcgcgga acttttcccc aacgcctacc 480
gccgcctttg cgcctctggc ccttcatgct ccctgctctc tccacctttg acacttctcc 540
tctggctggt tcccattcgg cctcagttga gatgtcatct tttccgggaa gtccacaggg 600
gttgatggtc cagcagtgcc ctgtcctttc cctaaagtag catttctcac actaaactcg 660
tctgtctctc cctactgttc cccttccctt tcccaagctg ggtcagggaa ggacccttgt 720
ctgtcttttt cagctgtatt ctcagcccag ggacctggct catgccaagt gcccagcagg 780
tgtttattga atacgtgaaa ttccgttttc tgagccagag gttatcattg tactgtggca 840
tcaaatgcag actttcgttg atttttatga gatttgtcct tagttgccct aagaaagttt 900
tacttctcca gacttggaag ggcaacacat gggatgtttg gtttgttctt gaccttctgg 960
ggtccatgaa gggtggatgg ggactgggct gcagagagag gggtgaccag gatggtggga 1020
gtgaccctgg ctgatagtct ccctgcctcc caccctgcag cggctggact ctattacctg 1080
gcagaactga tagaagaata cacagtggcc accagcagga tcataaaata catgatctgg 1140
gtaagtggca tctttctcca ggagtcctcc tcactctttt gccctgcctc aaaagcagga 1200
agtggggaga gtttggcatg gatgatgagg cctgtgtctc tgctgtttcc tgagcataca 1260
ctcttacctc cttgccctga acgctgtctt ttgggtctgc actcctgggc ccagatcttc 1320
cctggccgcc ttccccaagt ggcattgttt cactgcaggc cttgtgctct agtccttaag 1380
gtgacagcga agtgtacttc tctgttgaca agaccgtaga tttgactttg cttagctctc 1440

tcccgctgtc tttagccctt tgctctgctc acagcattta aaacttagag gagccataag 1500
acagttttgc atatatgttc attgccatct ttctaatcgg atcaagtgat ttgtcctaag 1560
atcggcacag cttcgctgcc ctcgcccttc cctggtctca tgggaggctt ctcttactga 1620
agacacagtc cttgccactg atatcaaagc cataggggtg actgctggtg gacagacttc 1680
cttcagctgc aggaaaggct gggggtaggg gtgccattgg agagaaagcg tccacagccc 1740
ctcaagtcgc ctggtgtcag cagccatgtg cactctgggc atggctgagg ttgggagttc 1800
acagtggagg caagactata gccctcagct ctggtccaga ggcccagctt gtgggtgttg 1860
gcacagtaat tagcccttca ttcagccaac tgtcatttgc taagcactga caactgtagg 1920
tacttatcag tagtgttttt caaactgtag gcatgattca ttatttggct gtatagtagg 1980
tcacaatcag catttttaa aaaaaggaac ataaatagaa ttgaaatttg agctttgaat 2040
catatatatg tatatatgtg ttggggtcac agtgtaaaat gtttttcttt ttctttttt 2100
ttttttgaga tggagtttcg ctcttattac ccaggctgga gtgcagtggc acaatctcag 2160
ctcaccgcaa cctctgcctc ctgggttcaa gcgattctcc tgcctcagcc tcccgagtag 2220
ctgggattat aggcatgtgc caccatgcct ggctaatttt gtatttttag tagagatggg 2280
gtttctccat gttggtcagg ctggtcacaa actcccaacc tcaggtgatc tgcctgcctt 2340
ggcctcccaa agtgttggga ttccaggcgt gagccacctc gcctggcaga tgtttttctt 2400
actgtgggtt gctgtcaaaa agtttgagaa atgggctggg tgcggtggct cacacctgta 2460
atcccagcac tttgggaggc catcagaagt ttgagaccag cctggccaac atggcaaaac 2520
cctgtctcta ctaaagacac aaaaattagc tgggcgtggt tgtgcatgcc tgtagtccca 2580
actactcagg aggctgaggc aagagaattg cttgaatcca ggagatcgcg ccactgcact 2640
ccagcctgga tgacagagtg agactccgtc tcaaaaaaaa aaaaaaaaat gttgcctttt 2700
gggagcagag aacctagctg gggaggccag acctgtgaaa tgaggagatt gaagcatgaa 2760
cctagtgctg cccagagcgg gctgggggtt ggtgagtcca ggaacgttgc ctggaagaag 2820
cgccctgcac tgtctgcctc tggttgtttc agttctccac cgctgtactg attggcctct 2880
acgtctttga gcgcttcccc accagcatga ttggagtggg cctattcacc aacctcgtct 2940
actttggcct cctccagacc ttccccttca tcatgctgac ctcgcctaac ttcatcctgt 3000
cgtgtggtga gaggggacag agttggggag gcagctgatg tggttgggtg tgcccatctc 3060
catcctgggc actaaagggg atacagaaaa aggaagccag ctgttgaagt cctccaggaa 3120
gccaggctag ttgggaagat gcggttctta ctgctgagga ctctagagcc caccttggct 3180
ctagtgaata gaatttgttg gggctgggga ctcagacagg gagggctttc ccagagaggt 3240
aagtttgaag gagagtttgg gaaagaagag gttgtggatt ggctgaggca gggcccccaa 3300
ctgagcagtt ccagcctcaa aaaaaccact tggccagaaa aagcccaaag cccttccggt 3360
aggcaggcag ctgtccgtcc agtcctctga cccaaagtca ttgttaggac tggagcctca 3420
tggggctgtg agcaccttgc agactctggc ctggtgtgaa tgcctcctgg gggctgcagc 3480
ttctcatctc attctcactg gctgccgctg cctcgggctt gagcctggat gtggaggacc 3540
cagtcttctt ggcgttgccc tgccaccact ttctgaccct ggggaatcat tggccctctc 3600
tgggccttag cttctccatc tattcagaga ggatgtttct gaaagaacta ttgggagact 3660
cagtgggcat atagtaggtg catataggta tttacagata ttcctggaaa aggcttcgga 3720
aagtattttg gttgccaaga ttgccattgc tcctgttcat cattgctggc taccctagct 3780
ttcagtcagg gtatcagatg gagttagggg ttttttagag tgacttttct atttctatga 3840
gagagcctgg agggtgaata ttatccacac aaagggcata ttgttaaagc caaaactggt 3900
ttcttccttg ggtgtgattt caccaaagaa tttgttcagc agaggtttgt tagggagccc 3960
ttccatggag accaggcccc tctgtccagg gaagaagtcc tgcccccagc ccctcagcag 4020
caggctcccc tgacttcact cccttgatct gccctttaat gcctaaaaga gtttttccaa 4080
aagatcttgt gggcaccagg cactatccta cctcccatta tctcttagcc ctagagtgtg 4140
gctaggcata gcagaactgt agtctttgcc ttagaatggg agaggcagga gagaagaaag 4200
gagacatgag aattgctgtg aggtgtgtgt gaggggacag tcagtttcag gggacatgtt 4260
ctttctggtg cctgcccttc acctcaccat gggaaccggc agggatgact gtctcttgag 4320
cagcctgtgt ccaggatatg cacacgtgcc ctcttttata aactcagtta cacaccaagg 4380
aggggtggct gtgtgtgtgt gtgtgtccag aacgtatcag ttcacaccgg tatgccttac 4440
ctgggggcag gatgaggagg gacccctcc cccagaatgt tgaggaacct gaagactgca 4500
cctcaaagca tctagcaagt cttgcccttt tattcctgag gagtgagagc ctttttattt 4560
gagcaggcct tctccttgct gcccagtttg tttatttgag caggccttct ccttgctgcg 4620
agtttggagt agagcctctt aggggcgtct ggtctgcaca cccatgattt ctccccacct 4680
gtcactgtgg gagagctttc tttagccctc acatccacga aaaacgaggt tcatcgtcat 4740
gatgctttgg attatgtaac atagaagtct cacttttata acatgcaaag agccttcttc 4800
taattttact cagaatgccc tgtgcagtgg gcaggttgag gctcattctc ccattttagc 4860
agatgggaaa cggttctagg cagtagccta ctctgagttg agtgtaaagt caggcctaag 4920
actccatgga ggctcccaac ttctgagggc cttttgaagt taaaagtaca gctttctgtt 4980
attcccctta aactgactga ctcttcattc cctcaacagg actagtggtg gtgaatcatt 5040
acctagcatt tcagtttttt gcagaagaat attatccctt ctcagaggta agaagtgtcc 5100

```
agcacattca gctgttaaca gggacagggt agtaaaaggg aacttgcatg gtttacttta   5160
taaacttagc tatgatttga aactgaatct gttcaaggat tacatgtttg aaaaaaacaa   5220
aacatagatg gtttgagaaa gctgtgtgga tggggacaga ctgtgctcat ttggccgagg   5280
tggggaggac actgctcttc ctcagtgagt cctttgggtc cccctcgagg ggtcatcctg   5340
aggtcaggaa ggggtactag ggtgaccttc tctgacacag tcctcacagg gcagggatgg   5400
actgcacccc tgagccccag cttttcccag tggccgccaa ggttttcttc tcccacgatt   5460
tctccacacc ctgctgctcc agtttgaacc tctgggaaga gcaaggtcac ttctttgggg   5520
ggtgtgggtc agtcagtcat ggcttagcac tttgtctgcc tccttcagtc caggggagtt   5580
gcttgtccta gcgaccaaga tatggggttt gtggccacat tcagtcattt tcagcctcca   5640
cctttcccca cagaaggatt tccatgtctg agggtggcgt tccctgcttc ccaggcctgg   5700
gccccctttg gagatcaggt gtggcccccc gtgcactctt gaccaacacg cagtcaccac   5760
acccagccca ctcttggcac ctccggggca ccctcttctc agtctctctt gttgccaggt   5820
cctggcctat ttcactttct gcctgtggat aattccgttt gcgtttttg tgtcactttc   5880
ggccggggag aacgtcctgc cctctaccat gcagccagga ggtgagaagg gatttgtaag   5940
gggcccaggt gggggcaagc cagcaaggcc tgggttggca ggggtccact gagggaacct   6000
gaatctagcc ctgtgttgga gacacctgga ctcggggttg ggagggccgt gttcacacac   6060
atgcgcacac acacacacac actctctctc tctctcatat tcttgcctgt atctccacag   6120
atgatgtcgt ctccaattat ttcaccaaag gcaagcgggg caaacgctta gggatcctgg   6180
ttgtcttctc cttcatcaaa gaggccattc tacccagtcg tcagaagata tactgacccc   6240
catgcaggca ggatgtgggg ggcaagatca ggagagtcag gcccctgggc ctctatgcca   6300
ggtggggacc agaagtcggg aaggcaccta ccacctgccc tggctttctt cccctcaact   6360
ctggagcccc atccccaccc tccttggggg gctcagcttg gctcagatct gatgcttcaa   6420
gaggctgtaa cctcagaggg caccaaggag ggtggcagag cctgcttagc caggaggccg   6480
aggtccctca gtcctcccct gtcccttcca aggtgggtca ggaggttctg gccccgctgg   6540
ggcaggcagg gcagggtctg tgaagcttaa gagcagatgg tgacaagttc tctgggcagg   6600
tggccatggg gaggggccat ggcttggcat gtccaacaga aatagttttt gctgttgaac   6660
ggtgatttct gtccaagtgc agatttccgt ttgaataaag cttcgcttct aggtggcact   6720
gtttgcctta ataccctgac agttcatctt cctttcttcc tgctaacctt ctgctctgga   6780
ctggactcac ttttctgctc cagggactcc ttttctgggt ttgggtcttg cccttcccaa   6840
gggactgttc ttgtggccct taatgggaag ggggcagggg tgaggagctg agcctgctca   6900
aggagtggga agtggggcta taggcagcct ctctgatgca ctctcttcca tctctttccc   6960
caaggctccg tgactgtcaa actgggagta ggagagggga caatttagga ctgggctaga   7020
ttttcagaag aacatctaca atatcctatt tataaatctt cctctgggaa aaggagtggt   7080
ttctggctga atactatctt aggctcaagg agaaacaaaa taaaaattag cttccaggca   7140
gcctgttttt aaagaaatgg gactaatggg agaagctgtt tgtcactcta agagcatcca   7200
agccctggcc cgtctgtgca ctcttggctc ctggggagat atatctgcct tctaagaagg   7260
caggccaggt cttgggcaca gacctgcatt tgttgacctt gcactccaac tatagtgcct   7320
tgcaagtgct caacagtaca tattggaatg aagtccctat gagagccatt tctggccatg   7380
ttctatacct caaagtgagg ctggcaggta cagagatgaa ctgtacacat gtgatacatt   7440
taagccactg gaaaaacccc tgtgcttgaa aatatttcct ctatatcatg cctggagttc   7500
catcatagcc cttcatttcc ttggctttag catttacctt ctcttaagaa taccagcttt   7560
ccccttccc tgagaggaag agcacatgtt ggtctcctct tagtgtgaac gagattgcca   7620
ggccctttc tcctatgcac accaggatag acaaggcagg ggatactggc agcctgcatc   7680
atcctcccat tgggctgaca gctggcccta ctttcctccc tctgctgctt ggtccctcac   7740
cttgatgatg tggcttcgcc ccctccactc tactgccagt gttctcccag ggcttgctaa   7800
atccagcaga ccccctttcct gtcttactag atctgggcag catttgacat ggctgatcac   7860
cccttgcttc ttggatggca cttccctggc acctctgtgg ctagttgtcc tacctccctg   7920
gctgttcctt tcaggcttcc gtgcaggctt ctccacttgc ccatgcacag tagggtcttt   7980
cagggttctg ctgtgggctc cctagggaag cccatccatc tggatggttt caaggatggt   8040
gaggaattta gagttgacct ccagccccaa catccttcct gatcacctga accacagttt   8100
tgctgccctc taggtgcaca gacaattcag gtccatggcc cagatggtac ttgctgtctt   8160
ctgcaaacct gccccttctg ggtacttccc ttgaccccga gatcactcag gagccagaca   8220
ggaaacttat tctattcctg ttttctcttt ctgcccacca catccaatct ctcaaaacgg   8280
tcaggtctac cttaacatct cttgatttga gccactccca ctgtcatcag ctttcacctg   8340
gattatcgtg acagcctcct actgcttctc tatcatgtgg ccagagctat cttcctaaaa   8400
tgcattgcat agttgatcaa gtcactctct ggcctaaaac cttccttggc tccctgctgc   8460
cctcaggata aagtctggac ccctcagcat ggcttgtgag actcatggtg tccttgtccc   8520
tgctcacctc tctggtctca tcacttgcct tcttgcattc tgggtcccag cctcctgtat   8580
ccagagatgc agtggctctc cattgccact ctgattcctc ctttcttttg gtcacagaga   8640
aagggtactt tctctgtcaa atctcaactt agacttgact tcctccaagg agctttggct   8700
atactctctc ctcccgaccc ccaccctggc atactacaca gatcactctg ggctcacttg   8760
```

cctgcctaat ggtcatctcc ccagtagact gtaagctcct tgagggcaag gattgtgttg 8820
gaatttttgt attaacagtg cctggcttgg tgcctggcac ctagaaagca ctcaataaat 8880
gtttgtttaa tgaatg 8896

<210> 2113
<211> 854
<212> DNA
<213> Homo sapiens

<400> 2113
tagcagggaa gcccatgcca gggggacata ttagttgccc tccaccccat tctgggtctc 60
agcttagagc ctgcagcagg aagggcttaa tctgaacaag aaacagaatt tcccagtggg 120
tccttccatc ctggaagcct gggcccttag ggctgggagg gcagtggggg tgccaaaatg 180
tgacaacttt tacaatgcca aggtgaagaa tagtgtctga ccccccactc tcaacctaac 240
ttggatttcc tggcggcggt gggggggtgc caagagattt atttgcagag aaaagggagg 300
cctggggtct gggcttttga ttgggaaggg tgactcctcg agcttgggag tgggaagccc 360
ataggcaccc ctcccccttt cctcgccacc cacaacgtga attgccacac ttcagccttc 420
actgggctgc ctcaggggga gaggtagcca taataacttt atgggttggt ttgtggggag 480
ggcagggtgg ggagtccttg atgagatcgc acagctgcca ggaaggcttc atcgaatgtg 540
tcacgcaggt tcatggccag agtgtcggtc cagaaggtgt tgtcacccag gtgccgcttc 600
ctgggcactt ccctcatgct gatggggtaa aagccctggg gcaccttcat tctgtatggc 660
catacacgtg ggtacagcat gcgcagcagc acctcaaaag gcagccgcgg cacgggcgcc 720
acccagtggc cgtccactgt gtgcagccgc gcaccgccgt gcccatcagg cctcacctcc 780
aggaagctgc tgaagtcgtg ctccggagtg gggtctggat gcacgcccag gcggatgccc 840
tgcgagtggc tgat 854

<210> 2114
<211> 397
<212> DNA
<213> Homo sapiens

<400> 2114
tcttgttcta catactttat tttgcatgcc tgtctccgcc actagatggg agacttgttg 60
acaaggacta accggttcca ggtgcccctc aggaaccctc ccagaggtgt agtaaatgca 120
tccagcgcct agcggacgcc ctgcgtgccc ggcaaggggt gaggtgcagg cgatacaaag 180
gtgcagaatg taccccaaaa gaacagccta gaggggaatt aggccggagg atgaccgatt 240
aaaatcaccc caactcctga ttgtgccgct tcctaggtgc atgacccagg gcaacttcct 300
ttggccccgg cttccccgtc tataaaatga tttacattat ctgctcaaat ttccgacaag 360
aacacacctc gcctttatca cagagcgtgg cacatat 397

<210> 2115
<211> 364
<212> DNA
<213> Homo sapiens

<400> 2115
aaccaccatc aaacaggatt ttcgcctgct ggggcaaacc agcgtggacc gcttgctgca 60
actctctcag ggccaggcgg tgaagggcaa tcagctgttg cccgtctcac tggtgaaaag 120
aaaaaccacc ctggcgccca atacgcaaac cgcctctccc cgcgcgttgg ccgattcatt 180
aatgcagctg gcacgacagg tttcccgact ggaaagcggg cagtgagcgc aacgcaatta 240
atgtgagtta gctcactcat taggcacccc aggctttaca ctttatgctt ccggctcgta 300
tgttgtgtgg aattgtgagc ggataacaat ttcacacagg aaacagctat gaccatgatt 360
acgc 364

<210> 2116
<211> 686
<212> DNA

<213> Homo sapiens

<220>
<221> SITE
<222> (95)
<223> n equals a,t,g, or c

<400> 2116
caccaaggcc agtttggaag cgaacggcta ccccgaaatt aagatactac agcgtgagtt 60
atgagaaagc gccacgcttc ccgagggaag aaagncggga cagttatccg gtagccggca 120
gggtcgaacc agaagagcgc acgaggagct tccaagggga aaacgcctgg tatctttata 180
gtcctgtcgg gtttcgccac ctctgacttg agcgtcgatt tttgtgatgc tcgtcagggg 240
ggcggagcct atggaaaaac gccagcaacg cggccttttt acggttcttg gccttttgct 300
ggccttttgc tcacatgttc tttcctgcgt tatcccctga ttctgtggat aaccgtatta 360
ccgcctttga gtgagctgat accgctcgcc gcagccgaac gaccgagcgc agcgagtcag 420
tgagcgagga agcggaagag cgcccaatac gcaaaccgcc tctccccgcg cgttggccga 480
ttcattaatg cagctggcac gacaggtttc ccgactggaa agcgggcagt gagcgcaacg 540
caattaatgt gagttagctc actcattagg caccccaggc tttacacttt atgcttccgg 600
ctcgtatgtt gtgtggaatt gtgagcggat aacaatttca cacaggaaac agctatgacc 660
atgattacga attcgagctc ggtacc 686

<210> 2117
<211> 364
<212> DNA
<213> Homo sapiens

<400> 2117
aaccaccatc aaacaggatt ttcgcctgct ggggcaaacc agcgtggacc gcttgctgca 60
actctctcag ggccaggcgg tgaagggcaa tcagctgttg cccgtctcac tggtgaaaag 120
aaaaaccacc ctggcgccca atacgcaaac cgcctctccc cgcgcgttgg ccgattcatt 180
aatgcagctg gcacgacagg tttcccgact ggaaagcggg cagtgagcgc aacgcaatta 240
atgtgagtta gctcactcat taggcacccc aggctttaca ctttatgctt ccggctcgta 300
tgttgtgtgg aattgtgagc ggataacaat ttcacacagg aaacagctat gaccatgatt 360
acgc 364

<210> 2118
<211> 288
<212> DNA
<213> Homo sapiens

<400> 2118
attaagcgcg gcgggtgtgg tggttacgcg cagcgtgacc gctacacttg ccagcgccct 60
agcgcccgct cctttcgctt tcttcccttc ctttctcgcc acgttcgccg gctttccccg 120
tcaagctcta aatcgggggc tccctttagg gttccgattt agtgctttac ggcacctcga 180
ccccaaaaaa cttgatttgg gtgatggttc acgtagtggg ccatcgccct gatagacggt 240
ttttcgccct ttgacgttgg agtccacgtt ctttaatagt ggactctt 288

<210> 2119
<211> 288
<212> DNA
<213> Homo sapiens

<400> 2119
attaagcgcg gcgggtgtgg tggttacgcg cagcgtgacc gctacacttg ccagcgccct 60
agcgcccgct cctttcgctt tcttcccttc ctttctcgcc acgttcgccg gctttccccg 120
tcaagctcta aatcgggggc tccctttagg gttccgattt agtgctttac ggcacctcga 180
ccccaaaaaa cttgatttgg gtgatggttc acgtagtggg ccatcgccct gatagacggt 240
ttttcgccct ttgacgttgg agtccacgtt ctttaatagt ggactctt 288

<210> 2120
<211> 149
<212> DNA
<213> Homo sapiens

<400> 2120
aaacaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aagaaaaaaa aaaaaaaaaa 60
aaaaaaagaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120
aaaaaacaaa aaaaaaaaaa aaaaaaaaa 149

<210> 2121
<211> 151
<212> DNA
<213> Homo sapiens

<400> 2121
aaaaaaaaaa aaaaaaaaaa gaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaacaa 60
aaaaaacaaa aaaaaaaaaa aaaaaaaaaa taaataaaaa aaaaagagaa aaaaataaaa 120
ataaagaaat aaataaaaaa aaaaaaaaaa a 151

<210> 2122
<211> 202
<212> DNA
<213> Homo sapiens

<400> 2122
aaaaaaaaga aaaaaaaaaa aaaaaataaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 60
aaaaaaaaaa aaacaaaaaa taaaaaaaaa aagaaaaaaa aaaaaataaa aaaaaaaata 120
aaaaaaaaca aaaaaacaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa ataaacaaaa 180
aaaaaataaa acaaaaaaaa aa 202

<210> 2123
<211> 4171
<212> DNA
<213> Homo sapiens

<400> 2123
aggtcagacc gggaagctga tgtatgtgat gcacaactca gagtacccat tgagctgttt 60
cgccctcttt gagaatggcc cttgccttat tgctgacacc aactttgatg tgcttatggt 120
gaagctcaag ggctttttcc agagtgctaa ggccagcaag attgagaccc ggggcaccag 180
gtaccagtac tgtgacttcc tggtgaaggt gggcacggtc acaatggggc ccagtgcccg 240
gggcatctct gtggaggtaa gaccttggtg aaaataggag caggatgttc tgagggggct 300
gcttagcaaa gggctctgaa gattttccag ttcttctctt ttttttttt tgagacagag 360
tcttgttctg tcacccaggc tggaatgcaa tggcacaatc ttggcacact gtagcctcga 420
cctccagggc tcaagtgatc cttccgcctc agtctcccaa gtacctggga ctacacccac 480
cgaattaaat ttttttttt ttttagtaga aatgaggtct tactatgttg cccaggctga 540
tctcagactc ctgggctcaa ttgatcctcc catctcagcc ccccaaagtg ctggggttac 600
aggtatgagc caacacacct ggcctccagt cctcaattta aacagatatt tatgcctacc 660
tgatccctga ctccaaggca tctatgcttc ctcttcgtga atcttttatc ctttctttaa 720
ttattcagag actctctaac acagctggca agtaggaagc gggaagctgg gttcaaagca 780
agcagaaagc ttcattagga agggtggctt gctggagaag ggaaaagata gtcaaggaag 840
gcaggtgagt tatgatatgg agggacagtc acccatgaca agaagttctg gagcagacca 900
ggacaactct tagaacaatt ttctggcggt gggccctaaa tcacatatgc ccatatacct 960
ttccttagta tgctttaaga taggttggga agcaaaaatg tgcttttcct tttgacatgc 1020
tgtctgcttt ctttcatggt agaaagagtg tttgtgtgtg agatcacttc atctgtgaca 1080
cagagagtgt gtgtgtgtct gtgtatacat acacatatat agtgacaagg agtgagagtg 1140

09502082.060201

09500839 - 091204

gcagtgtagc agtggctggc ttctttggga ccagggaaag ttcacaacct ataatgtgcc 1200
cagcactgag ataagaaaac aagtaagctt gcaggtctac cctttgaaaa tttgtgattt 1260
atttattaag agtgaggctg aaacacacaa actcttttg aagttagtct gaaaatgcta 1320
taaaagaggc agttggctct gggaattcag gccagtgtga acactgctga ctttggttgt 1380
gatgcttcct gaggatcaac atttatgtag ggatttaaaa tgtagagaca tggggataga 1440
taagtctagg aagaatccca gttggagaaa agggcattag tggtagtttc tgctcagcaa 1500
cctctaggac caagacttct aacccttcg gcttgtgata gaccttggat ttgctgagac 1560
ccactgagga cccgctgttt atcctccaca tttctaatct tgtagtagaa acacactcca 1620
cctgtttctt tacttatttc tccttagggt tgccagtaat tttgccctgc catctctcca 1680
gtaaaaaatt aagagagcag aaggagaaaa cctaagatgt atatttttg gcccatgaca 1740
cactatttgg gaaattcttt cttagggtca gaacccaggt tggttctact tagggagtaa 1800
aatttggtct tgaaaaaaac tcatgagcat atgtgtccac tctactctct acttaccacc 1860
cccacacaca ttttccttct ctttctcttt gttgtgtctc ttagaatttt cttgagctct 1920
ccttgaatct ttacccagca tagcagggac aacacagtcc tgagatcatc aaaaggggcc 1980
cagatctgct tctgggtcct ctgggagggc tgcgggttgg cacagctcca ggatgagaag 2040
gtcaaagatg cctaaagatg ctgggtattg agcccagtgt ttaggttgaa tgtttcctgt 2100
ggaccaatac tgtgctagga ggtgtgtgtc tttagctcgg ggttggggaa gatgggagca 2160
ggaggcagga ggtacaagag aagcagacct tgtcttagcc ttcattcacc ctcattctct 2220
gtgcttttgg ttcccaggtg gagtatggcc cctgtgtggt agctagtgac tgctggagtc 2280
tgctgctcga gttcctacag agttttctag gcagccacac accaggggct cccgcagtgt 2340
ttgggaacag acatgatgcg gtctacggcc cagcagatac catggtccag tacatggaac 2400
tcttcaacaa gatccgcaag cagcagcagg tgccggtggc tgggattcgt tagtgatgag 2460
cagctgccag ctgagctctg tcaccagggg tactccacag gaggagcagg tgctgacttt 2520
caggtccctg gaccccagaa acccagggta gacatggact ctactctcct tctctggttc 2580
tcagctgtgg cttttgttct ggggctgagt cccctcccca acccccctgac tctcacacat 2640
agccccccat cagctgtttt actccgtgcc ttactggatt tggcctgtcc tcaagaatgg 2700
taattatgaa gagtggagaa gtttggacct tgcctccttt aggggaaagg taggacagga 2760
atgtccctgc ctggtactgg tgggggaaat agtccgtatc cccaactatt aaggatttgt 2820
cccaggccaa tggtgaacat gctgcatttt atgtttggat tgtgctgtaa taagagcctc 2880
ttccttccct cagaggatgt ggctgggctt ctatcctaga gatggagtag aaggcacaac 2940
tggtttgata gttactattt tctgacctgt ttgctgaagt gatttgcgaa ttgactttcc 3000
tagggtgttg cctgagtcct ttgaaatctc cttctgacat ctttcccttc tgttgtgaaa 3060
tatgttaagc cacaggccaa actgctataa gatcgaagtt tgtttttttc tcacctaata 3120
atagagaggt aatcagatgg tctagggcag atttaactct acaaggttat caggaacttt 3180
gtttccttct gtcttattca gccattccca gtatgttttc ttacccataa gatcaaagca 3240
gactcatcag ctccatatct gcattccact ggggaaagag agagagaaaa gagcagattt 3300
taaaaaaaag atatgactga gcattgctca gatcactgtg gccacacttt gctgaaagag 3360
atgctgggac atagaacctc ttatctgggc agtcatgtgc tgagttaaaa ctcagggatt 3420
ctgtgactac aagatgaaag acaatttggt tgctgagatg cagttaatgg cttctgttac 3480
atggagctca atggacgtgc ccaggaatgc ttttggctgt tattttgcag ttaatacctc 3540
ctgtaactaa agcatttgtt tatgagttga cttgagagaa gggctgatct cagagccgct 3600
ttgagctaag ttggattagt cacactagga agttaattcc acacctttcg tctaagtctc 3660
agtattgagg cctctccagt tctcatgcac cctgatctta gggttagaat acttgaccct 3720
gatacctgca ccatgcttca tggttcctga gctctttctc ctgtttcatt tgagcctcca 3780
aactacatat ttggtcatat tgcctgccta ccccatgcct gctgcagaaa tattcatcca 3840
ggttaacctt gatatacaca gagatggtct tggagaattg tgaatgtatg tactgtattg 3900
tcatcaagga tactgtccct tatttgaagg catctaaaga gaaactgttt tcagatccaa 3960
gtgctcagat ctaaagcctc tgcaacaagt caggtggtgg tcatgtttcc cttctagttt 4020
tggctgacag gaagctcagt tcagtaccat aactacagaa cctgtcatct gtatttttg 4080
ttctcacccc gtttttgtta ttttgtttct ggtttttat attgaggtat gttttagata 4140
tagtttacaa aaataaaacg cacagatctt a 4171

<210> 2124
<211> 158
<212> DNA
<213> Homo sapiens

<400> 2124
taaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 60
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa caaaaaaata aaaaaaaaaa aaataaaaaa 120

aaaaaaaaaa aataaactaa aaaaaaaaaa taaaaaaa 158

<210> 2125
<211> 170
<212> DNA
<213> Homo sapiens

<400> 2125
gaaaaaaaaa aaaaaaaaaa aataaaaaaa aaaaagaaaa aaaaaaaaaa agaagaaaaa 60
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 170

<210> 2126
<211> 151
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (4)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (45)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (89)
<223> n equals a,t,g, or c

<400> 2126
aaanaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaagga aaaanaaaga aaaaaaaaaa 60
aaaaaaaaaa agaaaaaaaa aaaaaaaana aaaaaaaaaa agaaaaaaaa aaaaaaaaaa 120
aaaaaaagaa aaagggaaaa aaaaaaaaaa a 151

<210> 2127
<211> 77
<212> DNA
<213> Homo sapiens

<400> 2127
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 60
aaaaaaaaaa aaaaaaa 77

<210> 2128
<211> 77
<212> DNA
<213> Homo sapiens

<400> 2128
aaataaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 60
ataaaaaaaa aaaaaaa 77

<210> 2129

<211> 117
<212> DNA
<213> Homo sapiens

<400> 2129
gcagtggcac aatctcggct cactgcaacc tccgcctcct gggttcaagc gattctcctg 60
cctcagcctc ccgagtagct gggattacag gcgcatgcca ccatgcctgg ctaattt 117

<210> 2130
<211> 1940
<212> DNA
<213> Homo sapiens

<400> 2130
atttgtaacc aggctgtcat tccatgtttg tttggaagct tagagataac atttatgaac 60
tttgtgacac atagtagttg ctcaataaat gttaactgta gaaacacatt gattagtttc 120
acttcagaaa tagacactta gagttcaaaa ttcccatctg cctagctcct gaggcccact 180
ttcttaccag aatctttcct gataccctct cctgcataaa atggttcctc ttttgagact 240
ttgtagctct tttgtacttc tcttattctg ttacgttact gcaaaaaaaa aaaaaaagaa 300
agaaaagaaa agtgccaatt gtgtacatgc tttcctccct gctggaatgt aaactttgta 360
aaggcatgat ccatagcaga tacttcttat tacaaactac ctggcagaat ttctttctaa 420
agaacctact cagtaagcct gttggtgaac tgagcaacat ttggacaatt atggcatcat 480
cttacaattt ttcagctatt ggttttcact tgtttagaaa tgtaaaactt tgcaaggact 540
tttataaaag caaatttcag aatagttatt cactaagctt ttttatgcta atgatgtcat 600
gctatcaaaa attagctaga gtaaatggac tgtaatgagg atggtttgta atctagatta 660
tatgttccac atgtaacatc gaaatgaaat ataaaattga gttgttggca tgtggttgtg 720
gtgagcagaa gcagttatta tacattactt ggtaaaattc atattcatat cttgtcagtt 780
tacagtgagc cagagattaa aaataacatt tgtttctgtt ttagtaactg cttaaaaata 840
tccaaaatca ttttattttc tttagcctga cttctagtag tgttttgaat atgtggcctt 900
tcaagcagta atgaaatgca tcaatgcgac ttggcagtgc ctcacaggac atgcttctag 960
gatcattttt aatgattaaa agtcaaattg agttctaaaa aactgaccca aaatatagat 1020
gagccaagta aaaacggaag gaaatctgaa taaaatcttg gttcttggtc ctctgcatgt 1080
atcctccaca tctgttttct ccagatctct tttttcttgc ttgttgatag cacagaggaa 1140
gatcgcagag agtaatgtac tgtatatgtt tcacatcccc cttcctcttt agtgatagtt 1200
tggagagtat actgcagtca ccatggtttt cagtttggag agtacaagga tcagatctgt 1260
attttctaga gccagctttt gtggcattct ggagaggtga ttggagaacc atgagagcag 1320
gcagacatct gggtgagagg gcacgagggg tgagtgacgg cagagccaga cttgctggag 1380
aggcagaaag ggaaggattc aagtagcata accaggaaat agaattgata ggatttggtc 1440
cctgctgacc tgtggaataa gggggaaggc agaggagttg attctagtat ttctaagttg 1500
ggccacttag tgatattggg gtaccaggaa caggcttagt ggacccacag aagtgaccag 1560
acccaggagt ctctctgagc gcccaccctg gcttctctgt gttggcttac cctttcttgg 1620
ttgggggtca tggggtggtc agcttcagtg gtgtggtctg aggtgacagg tgctcaggag 1680
tgaggacagg gagtagacat caccaatgtg aatgtggagg taggcaacaa gagttattct 1740
agaactgaca aatttaatat attttgctga ctgctgagtt ccatttggac aaatacctaa 1800
tgcatttggg gcttaaaacc tagatgacgg gttgaagggt acaacaaacc accgtgatac 1860
atgtatactt atgtaacaaa cctgcacgtt ctgcacattt gtcccagaac ttaaagtaaa 1920
aaaaaaaaaa aaaaaaaaag 1940

<210> 2131
<211> 292
<212> DNA
<213> Homo sapiens

<400> 2131
atttgtaacc aggctgtcat tccatgtttg tttggaagct tagagataac atttatgaac 60
tttgtgacac atagtagttg ctcaataaat gttaactgta gaaacacatt gattagtttc 120
acttcagaaa tagacactta gagttcaaaa ttcccatctg cctagctcct gaggcccact 180
ttcttaccag aatctttcct gataccctct cctgcataaa atggttcctc ttttgagact 240
ttgtagctct tttgtacttc tcttattctg ttacgttact gcaaaaaaaa aa 292

WO 2004/050683 PCT/US2003/038760

<210> 2132
<211> 689
<212> DNA
<213> Homo sapiens

<400> 2132
aatttttctt ttaatgcagt atgacacaga aaacatttgg aggatgttga aaagtaattg 60
tttaaattgg caaagacaca tttcagtaag ggagtaaaca agagggaaac gtgttggggg 120
gaaaggtgtg gggaggaaac tctagaccag aggccctagg acttgaatat acaacttagt 180
cctgttgaaa attcagattc ctgggcctta aagtatgtta aataggtcag gggtggggcc 240
caggagttgt acttttaacg agcaccctcc tgtgattcat ttaacataaa aggtccttgg 300
ctcacacttg gagaaacact gctgtagaaa ctcaaatacc tattttaaaa caaaggtaca 360
ttttaatcat ttagtttaaa atgaaatcat tgcataatac tgatgttaga ggttagaata 420
aacatgtact taagttcttg atattcttgt catttcagtt acatgtcagg gaatgtgatt 480
tgtgttttga cgtattcaaa tccttgtcat attcaaccat attcgtattc aaaatatata 540
atgattttga cccttgattg ttcgaattaa gactgtcatc ttttctgtgt gattaactct 600
tgtgttgata taaatatgcc tttggcttac taatgttcag taagaactaa tgactcttgg 660
gaatgttaat agactctgtg agtcccttt 689

<210> 2133
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2133
ctatgggagg attgttgtta ttattgcttg atttacatgc tctcatttta tacaaagtgt 60
acagcacaat ttctcaaaga gtaattatga tgccaagaaa at 102

<210> 2134
<211> 689
<212> DNA
<213> Homo sapiens

<400> 2134
aatttttctt ttaatgcagt atgacacaga aaacatttgg aggatgttga aaagtaattg 60
tttaaattgg caaagacaca tttcagtaag ggagtaaaca agagggaaac gtgttggggg 120
gaaaggtgtg gggaggaaac tctagaccag aggccctagg acttgaatat acaacttagt 180
cctgttgaaa attcagattc ctgggcctta aagtatgtta aataggtcag gggtggggcc 240
caggagttgt acttttaacg agcaccctcc tgtgattcat ttaacataaa aggtccttgg 300
ctcacacttg gagaaacact gctgtagaaa ctcaaatacc tattttaaaa caaaggtaca 360
ttttaatcat ttagtttaaa atgaaatcat tgcacaatac tgatgttaga ggttagaata 420
aacatgtact taagttcttg atattcttgt catttcagtt acatgtcagg gaatgtgatt 480
tgtgttttga cgtattcaaa tccttgtcat attcaaccat attcgtattc aaaatatata 540
atgattttga cccttgattg ttcgaattaa gactgtcatc ttttctgtgt gattaactct 600
tgtgttgata taaatatgcc tttggcttac taatgttcag taagaactaa tgactcttgg 660
gaatgttaat agactctgtg agtcccttt 689

<210> 2135
<211> 58181
<212> DNA
<213> Homo sapiens

<400> 2135
agtttgctgg aacattatca gatggcttag ggaagacgat ggacaatcgg catcagtcag 60
agcgggagta catcaggtac catgcagcca caagtggtga acaccttgta gccggcatcc 120
atggcctggc tcatggtaag tcatgggtga catcaggctc tgctgctgct ggtcctcaga 180

PCT/US98/05960

```
ggcgcctttg tatcaatctg attgcagcta taaaaaaaga aaggtgggct gggcgcggtg    240
gctcatgctt gtaatcccag cattttggga ggcctaggag agtggatcat gaggtcagga    300
gtttgagacc agcctggcca acacagtgaa accccgcctc tactaagaat acaaaaatta    360
ggccaggcac agtggctcaa tcctgtaatc ccagcatttt gggaggtcga ggcgggtgga    420
tcatttgagg tcaggagttt gagaccagtc tggccaacat ggtggaaccc catctctatc    480
aaaaatacga aaattagaca ggcgtggtgg tacatgcctg tagtcccagc tactcgggag    540
gctgaggcag gagaattgct cgaaccctgg aggcagaggt tgcaatgagc tgagatcgtg    600
ccactgcact ccagcctggc aacagagcaa gactccaatt caaaaaaaaa aaaaaaaaaa    660
aaaagaaaag gctgacaaca gaggaaatcc tgtgttggcg tacctgatag ccttccaagc    720
tctcttactt tatcctcctt gcagttgaaa tacgacagcc ggtgagaact cctcattcgc    780
tttctgaatg ttgtgcacat tgcaattcct tttcgttctc tggcttctgt tcccaaagta    840
tcataaggtg taatcaacca gacctgttct tagaattgta gctgctactt ctcttagaat    900
tgtaacctct gccttctcct tactgatcat tccttccaaa gaaattgaaa tgaggaattt    960
gtggccaggt ttgtagccca ggtgtttttt agttttacat aaatgtgcat tcactaaaat   1020
tataaattta tttgcctaag agatgttggt gatggcatga atgcatttgg tctctgactt   1080
tgaattcttt taatgcttta attctgagtc atttgccttt tgttgcattt ttcttaacaa   1140
tttcttagta cggcatccaa ggcccttgga actataaatc cagccaattt tccaaccacc   1200
atccttcagc catgctgcac tttggccaca cacagctatg tactgcttcc caggtgtgct   1260
tccaagtcct tgctcacaca tggtccttct gctctccctc ctctgcctca tttccttgtc   1320
tatcaaaatc ctactcagcc tgtaagtccc aactcaatac attttcccag ctctattgtc   1380
cctgttagag ttaatgacag agcacagtct gggttgtgta tgtcaccagc tgtgtacatc   1440
tgatagattg agaatgtgag gaggggagaa ggaccacttt gcattcacct ttctccttgt   1500
gtacctcaca tgacacctgg cacatagctc atgcatagta aggcttagta aattaaactc   1560
tttgtaccag atccttagga accatccaaa gctatcagag tcatatcaag actgatcagt   1620
attaattatc tgcatttgga agaagaggaa ggaatataga cagtaaaata ttatatttct   1680
atttgtgctt aggacacgtt tagaatagag tttttgttta tcagctttcc taatggtgag   1740
atttggatca aaatgccttt gcttttccta aggctgccca accgtaaagg gagctgtccc   1800
taaggagacg tcaggccaga agtgaaattt ggctgaaagt aatttgttta tggattttaa   1860
aagttgactg ttgggcaatc atttggggtt aaggtttaat cattctttct cgtaatggta   1920
atgacagtac attggactct tagaagactt ttaaaatgaa tataaaatgc tttgttatgt   1980
gtggtggcct ttatctggcc agcatccttg tgacgtggag agagcatggc tctcctcact   2040
ttctggatga acacacaaat gtgctgagaa aatgcatgat tggttcaaag ttgcaaaatc   2100
acctcccatc aagaatcatt cctataatat gtacagcctc tccaggagcc aatggcttca   2160
tccaaagagg atccactgag ctctgggtta tacgaaggca gtatcctaga gtgagagtct   2220
tcccttagga tgaaaagacc tttagaaggt gataagaacc agaatccact caatcccctt   2280
gatgtaagaa atgggaattg tgctcagttc tctctgcagg ccttgctgga cccaggttca   2340
gtcatgttct gtctctcagg tcccagtctg aattcctgtt ctgtgtgtgc tctgccaaaa   2400
actttgttca aaagtttggg aaagggctgg gtgcagtggc tcaggacagt aagcccagca   2460
ctttggaaga cctagaggga gaatcgcttg agcccaggag tttaaggctg cagcaagcgg   2520
taatcatgcc actgcactcc tgcctgggtg atagacggac accctgtttc taaaaaaaaa   2580
aaaagtttgg gaaagagata ttgcctcact ggagcaaatt tacccagaat ccaaaagaaa   2640
tgttgtgaat tgttagtaca ttctcaccca aggagtttcc tttaccaatt tgtctcacta   2700
gagctgaaga gtctagagag cttcctcaca ccccactgtc agagggtaaa catcctgtga   2760
gtgtccctgg cacaggtcct ggagatgctc cctagacggg ctgcctcttc ccttcagtga   2820
ctgtgacctc ttcagcctct gccagcttct ggcctcttct aaggtgtttt cagccattgc   2880
tgtcaacttg caaaatgttt ggaatgcctt tttgacctgg attggtcttt tgaactgact   2940
ccattgaggg tcccagccag ctttcacagc tttttggggt gctcttcatg aaggttttat   3000
ataatcgccg ataccgaatt tcatcaaagc atgcagtagc ttttacctta tttcaagcat   3060
ccagtggggt tggccagtca cccccatagt gttctttgaa aattgcaaat gtataccatc   3120
agctctccat atccacagat tcagccaacc atggatggaa aatatttggg gggaaaaaag   3180
atttcacgaa gtgccagaaa gcaaaatttg aatttgccac acgtttcaaa tactgtattg   3240
actccacaca aatgaagtga tatgtgggca tcgtattagc tacaataaat aatctagagg   3300
tgatttaacg tatacaggac ggtgtgtgta ggttatatgc aaacacctac agcacattat   3360
gtaagggact tgagcatcct aggattttgg tatctgcagg ggatcctgga tcaatcccac   3420
atggatacta aggaacaact acatttagtt atctctctct gccttagata tctttctttt   3480
cttttctttt ttttttttct tttgagacag tctcgctcgg tcgccagact ggagtgcaat   3540
gctgcgatct cggctcactg caacctctgc ctcctgggtt caagcaattc tcctgcctta   3600
gcctcccgag tagctgggac tacaggcacg catcaccacg cccagctaat ttttgtattt   3660
ttagtaaaga tggggtttca ccatgttggc caggatggtc tcgatctctt gacctcgtga   3720
tctgcccgcc gcagcctccc aaagtgctgg gattatgggc gtgagccact gcgcccagcc   3780
tctgccttat atttcatagg atgccatcat cttcaaactt tccccgaagg cccaattttc   3840
```

```
tagtctcctg ttgatttaat cctctatctg tatcctctcc tgatcgtccg taggctgccc   3900
aagctctggg atcgaaaaat tggccactgt taacctctca gcttttctct gatttttttt   3960
ttttttttt tttgaactgg agcacacttt acttctgact aacatgtaac atatatcctc   4020
tgactctgga cttaatgggc aaatctgcag gatcctcttc tgtgagttgg cctgtctgtg   4080
gcctctctgg cacagagatt aatagaatgg ccttaagtta tcattccata atcaaggggt   4140
ttggctttaa atgcttttgc ttttgtcctc gtcaggttac aacagccctt gtctttttca   4200
ctaggtatca ttggtggact gaccagtgtt ataacttcga cagtggaagg tgtgaaaaca   4260
gaaggggtg tcagcggttt catatctggc cttggaaaag ggcttgttgg cactgtaacc   4320
aagccagtgg caggcgccct ggattttgca tcagaaacag cccaggcggt gagagacaca   4380
gccacactca gcggccccag gtcagtggtg tgggaagaat ggcttttgca gtttccagcc   4440
taggtctgct gcttctccta atccatactg atgtgtttaa ttgtgcactt tcttagttat   4500
agggttttta attcaaatac ttgtaactga aatttctgat ctgcctaata taaaaagatg   4560
aaaatgaggt acagaaacct ggcatgaatt ttttcagata aatatatata tagcatattt   4620
tatatatgct atatatttta tatatgtatg tatatatagc atattatata taagtatgta   4680
taactatatt atgttatttt tctccattag agaggtcaga attaggatta aactgttaga   4740
agcttcttct gttcaccaag ccaactggat ccccacatgc ctatgaagaa aactgtcaga   4800
ttgtagtctg gttcttactc ctacaccccg tgatatagtt ctagaatccc cactgttgtt   4860
gttcaccatg tgggtctgtt ccttcttaat tttccttccg cttgaaagta tcagccccaa   4920
ccccataaag aaaagtgcca ccccccatcc ccccagcagg tcagcagttc tgctgtggga   4980
ttgctgtctg gccttgatac cagctgagac tggaaatcag ggacagccca tatggttcca   5040
aaccccacag aacccaactg ctttaacgta gctgtttgct tgaatggcct attttagcct   5100
ccctttttcca gagtgactaa ttggggattc ttatcaacaa agggtataat gaatgttaag   5160
ggcccagcca agctagactc gacttaagcc cagaaggatt ttgctgctgc ttggataata   5220
gattttccct gagtgaatta gtacgccctt ttagaatgcc tagggcctgg cccacatcca   5280
caccctatca ctccctcaaa taggatgtga agtgaaattg tccccaattg aagtgaatcc   5340
atttgtctgt caccaggaaa acttactgaa gacacattac tgcagtaggg gaaatgctcc   5400
gattgtggac tggggccatg cagtgtgctg tgccagaatg ccttccatct ggaagcagct   5460
gagtaaactc tgtatggttt actttagtta agttacattc tattctcaga tacaaaacta   5520
aaacaatcct tgagtatatt ttgaagcatt tatgaagttg tggggagggg caggcagtga   5580
ggaggcttcg aaagtatttc cagttagttt ttccatctct gctcgaagcc caagaagtcc   5640
acctccagta tttgttaaga taataagact taatgaagtg taaagctgaa gacgcctaag   5700
agttcccaaa gaagcatgtg tattcttaaa atgtcaaaat agccaaggga ttggttgatt   5760
aaaaagggtt caaggtatat gtgataaatt ttttaaagat gattttgtgc tgtgaagttt   5820
taataatgtt gacgagaaag aaacggcttg aattttatac attgtcagct tgcaagtctt   5880
catgggggtt tttcattctt tttaggagca caagtaatgt agccacagtc actgcagaaa   5940
gaatgtcttt gagagggaca ttcttgtcat ttttattagt tgttcaacat tgccacagaa   6000
gtttgatttt ctgtcagcca gtacatagct gccatttatt cattgcctgt cagtaaatag   6060
tgattgaaaa tttcctatga actcagggtt gggaatagca gaaaccaaaa ctgtctctgg   6120
tctcaaagag cttataatca agcagggcag caaacataaa aaattatata aacacttatt   6180
tgctgaaatt gtgacaaatg acatcgagga cacttagagg gtgccgtgag actatgatca   6240
gagaaggtga tggggagaag gagggtggct aacctagtga tcaggggagt tgagacaggc   6300
ttttctagga aagtaatctt tgaggtgaag cctggagtat gaagtaggag ttggccaggt   6360
gaagagaaga gagaatcacc ttccaggtaa aagggaacta ctgtgtgtgc aacagcaaaa   6420
ggaaggaact tatctatgtg ccaggcattg tctttgtgcc tccacgtgtg gaatcccatt   6480
taatcttcat agttgattta caaatgagga caagacagtc cagagaagtc atggagcttg   6540
tccacagcca cacagctggt gggaaatggt agacctagac ttagacccag cctatgtctt   6600
gaccctgtgc ccagcaccac tgcattgcac cctgctgcct gggtctgcga ggaggggct   6660
cattggattt ctcttgtacg tgtttcagag tcagttagtg tcaagatatg gcattccaca   6720
tagtttcttc cctgctgact caagatttac tttactatta cctgcacact gacatgattc   6780
aggtcttgac caacactgca tttttgtctg tctgtttcct ctggcctgcc accttagcct   6840
tatctggacc tcagcagcag agaccatgcc ctcatgaagg cactggggag ccgttcacag   6900
tcagcactgg ccactcctca tctcagccca atgaagtttt acatttccat gtagatgagg   6960
cactcgggat atagaaaagt tgtgcagctt gactcaaagc agacagtaat tgggtagcct   7020
aattgaagtt taactgcaag ttccaacttt gtaggctgca gaaaaaaagg aaaaaaaaaa   7080
acaacaacaa caaagtttaa ctgcaagttt catgagacag cgatctgcct aaccattcac   7140
tcctcctaga agcaaaagct accgtgatca ttgaggcaca gccggtcttc atatatcctc   7200
aaaggagggg gattagcttc cacatccctt ctctattcct ggaggtgcca gtagtgggag   7260
agtcatggca gaagttacca gaggcaagtg gggcagaggc aagtagggta tatgtttgga   7320
tcagtggatc agtgtccttt attgtgcaga aaaagctaaa attacagatt cttctgaagg   7380
gatacatagc agccgtttca ccaatgtccc tcagtccatt tgtccaggtc cagaagtatt   7440
catgaggagc tatgcgttag aagagagcac ttgggctggg catggtggct cacacctgta   7500
```

09505082 - 091201

atccagcatt ttgggaggcc aaggtgggag gattgcttga gcccaggagt ttgagaccag 7560
cctgggcaac acaatgcccc catctcttac aaaaaaaaaa acaaacctgg atatggtggc 7620
gggtggtgtg cacctctggt ccttgctact tgggaggctg aggtgggaag attgctgaag 7680
cctggaaggt tgaggctgca gtgagctatg attgtgcccc tgcactccag cctgggcaac 7740
agtgagaccc tgtcaaacaa ggaaagagaa cacttgatct ggaaaacaac aggccagagt 7800
cccagccacc ttacttatta gctttgggcc ctgggtcaag tcaagacatc tatgtaagac 7860
tcagttttag ttttttcatc tataaagtgg ggataaattt atctctctgt ttattctgct 7920
tctcaggggt ttgaagccca accagagtta ttttaatgtg gaagctataa agaactataa 7980
aaatgctggg tgatattatt ttaaagtcct attaaaggag cgcagagatc cttgcaggtg 8040
gagaaatgtt tcagtgccag tttgttctga tgacactgta tctcttagga acatactggc 8100
tctaacacta tcaccgaggg ataaatcacc ctggtttctt ggaagtgagt tataaccatc 8160
tccaaccatc ccggttgatt gaacaggatc caggggtgtt actcagggtt tttccccact 8220
gtttagacaa cagggactaa caaatgattt gaagggatta gaagtgagat tctgaccgag 8280
ggttgacctg agcccaggga ccaagccagg aatagaaccc aagagtccaa gagttctgcc 8340
tctgagcctg caattggaat gagactttct gcttcctttg taatatttca tccaagtaaa 8400
ggcttagatc ttagcatcta tgttttaaaa gacccaaatt ttaagcagat gataggaaag 8460
taagccataa aactgtgaaa gagtactcct tccagtaatc catctgaaaa gtggccttac 8520
aggaaacatt ggctcttttt tgtgtttatt tgaacatgat tttatttata gggaacccca 8580
cctccttatg ttcttttaga ttaaaatact tccaagttcc tctccttgtt ggagtgcgct 8640
ggcattccaa gcgacagcca cctaactttc ctctgaaatt tccaggcaac ccaatagttc 8700
tcaggaaggc aggtgggggt ggggagagaa gagggcggag gactgcagag cctttggcct 8760
caacatgagt gttgtggacc aatatccccc actgcatttg ttcactgtac aagtatgtgt 8820
ggtttggaac tgaaataaga aacctttcc aaggcaacgt tctgctggct caggttgcat 8880
cttctggcct acgtgtattg ggccacactt tgtctgttcc caagtaaagt ttatgaaaat 8940
ggcacagatg cagccacact tgaggtgcca ctgaagctat gtgaagagcc tgctaccctt 9000
caaacagacc aggcccaagc aaggtgccaa gccatgtgag agtgcccagt ccactgtgta 9060
aatgtgacgg cctttgatgg tagtgtttga aaagatactt agtagaaagt tgcagagacc 9120
cgggagcagc catttcacaa aagaaggcaa aaataccttt gagaagaaag gaatgtctgc 9180
ctctgcacta tgtatttgct tgtttgtttc tccaaatacc atctgttgca gactggggtg 9240
catgacattt taggtaagta gcagatgaag atttatgaag ctgggccctg aggtttcctc 9300
taaaatattt cttcaccttt taagtcaaga cccaaaagtg gggagagaag taggagttgg 9360
cagaacttga aatatttaaa ctaatttagc aaagctcagg agtgttggag cttatctcgt 9420
tatttaagtt agataaggag gaaggggaat ttgaaggata atgatagatc agtgtttaag 9480
aatacagcca tcaggactga taatgttctg gaatcccggg accctcggat tgtgcacgta 9540
gatgtaaatt ccatttgctc tgagaacttt tgaaaaagaa agtttttggt tgatttcaca 9600
gaaaagattt atggtgggca tatttgactt tttcagtaaa aatagcccca aaacaccacc 9660
caaaatctgt taagacactt ctcgtgaatg acctcttaga tgtgaaatgg aaatgggttt 9720
tcttaaggaa aggccccttt tgttaacaat gtttgcatgt tacttatgac tctccaggat 9780
aaaaggacta agactctttt gggtcaccag agcctgaatg cagtcaggtt ggacaggtca 9840
gcaaaaagtc tgcaaagagg ccgggtgtgg tggctcacgc ctgtaatccc agcactttgg 9900
gaggccgagg tgggcggatc acgaggtcaa gagatcgaga ccattctggc caacatgtcg 9960
aaaccctgtc tctactaaaa gtacaaaaat tagctgggcg tggtggtgcg cgcctgtact 10020
cccagctact tgggaggctg aggcaggaga attgcttgaa cccgggaggc ggaggttgca 10080
gtgagccgag attgcgccac tgcactccag cctggcgaca gagcgagact ccatctaaaa 10140
aaaaaaaaaa aatagtctgc aaagagaact taggaaatgc ttccattaac tttttcatcc 10200
tagctgggta atactgcttt taattactct gctctgagag cagccatttc ttatacttgg 10260
tattacacat aggacatcaa acagaattgg cttgaattga gcctttaggg aacttccaaa 10320
ggtaaagatt gagtaaagat tcaaatgttt attaggatat accagtgttc atttttttcc 10380
cactaatatt ccattcaagg caggagacta ggctgatatc ccatgtatct agagtggatc 10440
aagtccaata tttctttcag agttcctgtt ccttaaaact gtaaatgggt tttatatttt 10500
attccatgtt tggcttaata agaaaatatt tttaattgct acctggtaaa attaacattt 10560
cagaaagatc tgatatgtta tcctgtggct cctgcctcat acttatctag gaagttccag 10620
cacgctcctt ccagatgagt ccggtacgct gtagtagcat ccatatagag gcatgtatat 10680
ggtagaggtg aaaagctgga acttgtacct gtttgaccct aaggctctgg ttctaatctt 10740
tgggcatatc tgtcttttgg cttggtgtaa catctgctgc ttgggacagc cattgtgtta 10800
gttaacatgt cagtttcatc acgaaaaagg cattacattt cagtgaaact gaaaaattat 10860
tgctatatcc agctgaaggg aagggactgt caaatatctc ctctgttgtc caaacatggc 10920
acagtagata tagtgacagt ccctttatct tctactcacc cttgcgtata tatttgtgag 10980
gtgagagcca tatattctca cttcctgatc ttgccaaacc aggtccttcc agagaatgct 11040
tgaaggtaga tgggtcattt tctcattcct ccctctacgt gagcaacccc agaagaacac 11100
taagacctgt gttgatgaca ttggatgtct cacttggctc tgaaattaag ctgatgaaat 11160

09505008.030104

09650820 - 090504

```
tataggatcg gatattttat tttatttttt ttcaagacag agtcttgctc tgtcgcccag  11220
gctggaatgc agtggcacaa cctcggctca ctgcatcctc cacctcccgg gttcaagcag  11280
ttctcctgcc tcagcctcca aagtagctgg gatggcaggc gcacgccacc tcgcccagct  11340
aattcttata tttttagtag agatggggtt tcaccatgtt ggccaggccg gtctcgaact  11400
cctgacctca tgatctgccg accttggcct ttcaaagtgt tgggattaca ggcgtgagcc  11460
accacaccca gtcaggatca gatattttaa agaagcatct taacagtcct tcatgcctta  11520
taagttaaaa ttcctctcac aggaacgtaa gcagagaaat cttatttttct gagacaggct  11580
tcttccctct cgctgaactc taaatactgt attccccttt cactcaaagg ccccagacga  11640
tgccattctc attataacat aacttatgga aagctcagat ctattgttgg aaaaaatgca  11700
aagtgtgtgt gttcatgcac acacgtgttt gagaaaagcc tttccatttc tgaaatccca  11760
agagtcattt ttatgcaaga ttatctgtta ggaaaaaacc cacttttttg gtcatggtac  11820
attataatca tttctagaaa ggagagcgtc taatttttgc cattttggc atgcagagat  11880
gactgacttc atagaaacca cactatcctg cttccaaaag aaaaaaaaaa aacctactga  11940
atttacatct gaatcaacat ctcttcaaag tccagtcctt gcatctcaac cagcaggtcc  12000
ttgtgcaaag aaaatgaatg ggaagtgtga tttggggtta ttccatttac tttctgattt  12060
ggggttattc catttaaaaa tgaaataatg ttgccattat acatctgtag tcccttctgt  12120
gttcagtgaa tttgttttta aaactctaac gtgacaccta atattacata cataagataa  12180
gacatttgag atttttggtt tgaacttcaa gaaaaaataa aacggtgtct atttcttttt  12240
gagaaaaaat ttgtattttg tgcattagag aaggttgaag agccatttgt tatttgtgga  12300
actcctctgt aaaggcattg gatttactta tttttagatt ttcatgacta tcccatgcct  12360
catgtttttc ccttacagaa tcatccacct ttgcccaaga taaaattgaa atctttaaca  12420
agaggaccca ggtttgagtt cagctcccct gctcccagag agctttagac tgtaagataa  12480
ttctgagata cacacaggac atttggacta gcagggactt aaagactcac tgttgtatta  12540
cagattatgg ctcggaagca ctgagggaag gaaagatagg tgtgggtgtt ataattcacc  12600
cgtggttttc ttgccctgat gtatttatct ggtactcttt tgccagtctc cttctcaaag  12660
acattttctt gctaaatttc ttactaactt gtcaaatgga gggaaaataa gattgaatta  12720
gtaaaacatt cttatcacaa tatactctaa aagaggctgg gcgcggtggc tcacgcctgt  12780
aatcccaaca ctttgggagg ctggggcggg tagatcattt gagctcacaa gctcgagacc  12840
agcctgggca acatagtgaa accctgtctc tataaaaata tacaaaaatt acccgggtat  12900
ggtggcacgc gcctgtggtc ccagctactc cagaggttga ggcaagaaaa tcgcttgagc  12960
ccaggaggtc aaggctgcag tgagctgaga ttgcaccact gcactccagc ctgggtgatg  13020
ggagtgaaac cctgtctcaa agaaaaaaaa aaaaacaaaa aacttttgtt atattgggct  13080
tatataattc aaattaataa tgttacttat ctatatcctt agtggattta ctttaataca  13140
ttgaggaaac cgctttctga ttagcagaga gaatttgtac atatgggttc ttttagaaca  13200
gagggtctca aaatacggtc tagggacccc ctgcggaacc ccagatccat aacctaaaac  13260
ctatttgtat atattcatgt acttatatat gaatttatag atataacaat ttttataata  13320
gtattctcta atgagtatac agtggagttt tccagaagct acacaatgta tgatattgta  13380
acagattgac tgtagaagca gataggtgaa tacagctgtt ttccagttag caagacttaa  13440
gagatttaca aaaatgtgca ggtgccactc tcctcacctt ctgtgactct gcatacatgc  13500
caccagccaa caaacgtacc tggttaattt ttttgacaag ctgctctagt tgaaaataca  13560
gtgattgata atccatcatc ttgctgataa gtagcacata tcggcaatga tgggctaatt  13620
cggactaaac cgtaggagcc gctgtaatgc aatgcttccc tttggcttcc tgccaacagt  13680
tgtcagccct cctggtttgc tcctgacttt tactgggttt ctagaagtaa caattggaaa  13740
tattttatca catatcagaa agacctctta caataattta cctaatttag ttcttcacct  13800
taacctacca tcccaataaa ttttaatttc ggcagggtag taagtgtaga gcagattact  13860
tcaaagtgca gaatcttgtc caaaggctgc ttggttgtgt ttgcactgcc ctgactcttg  13920
caggtactcg agaaggtgta tctgtttcag aattcacttg ccaaaacctc aactttctcc  13980
cctagcaaag ttgctggagt aggataaacc cacagtattt ggataagctc ctttgaactc  14040
cttgtagaaa gcagttttta tgaggcagtt gttctgtgtt aacaccagag acaattccta  14100
gcagatttcc ccaaacatac ttcaaacatc gataatggca ggggtgaccc aaactgtatc  14160
ataaaatccc agggactgca ggagacttca aaggggagac agagcaaaac ctcacttctc  14220
gttatgagga gtatgggtca caggaatcct ggctagaatc catggtaacc tcgcggagta  14280
atgccaggat ggacagaggc cagggctcat cagttcccta gactttacta attgacccca  14340
gcagcacagt tagagtggta ataactggca cctgcccacc tcctgaggtg ttagaggcca  14400
aattaccaca tgtgaagtgc ttttctatcc tttagtgaga agatgcaaac cttgaagtgt  14460
gtttctattt ttgtttgaac tatcgagggc ccagttaatt cagttgagcc aattctgacc  14520
ttgggatatt cagatccatc acttagtatg tacaggcaaa ttgacagtag aaatttattg  14580
agtcttgaac tcctactata tttcaggcat ttaataagta ttaaatactg ggaatattta  14640
aataattgag gacaaactgc tctgaagaat caccaagctg tttggtttgt gtgttaatat  14700
tcttaagcca ctcttacgtg ttcattaaag caagtttccc tatagttttc ttgaagaact  14760
catttttag tgatttgact tactctttat tcttgaaaac aacaaaattg catttgtgca  14820
```

tatggtatgt gttgaggggg gtaattacag gcatttttc cctcattacc gggtccgtta 14880
cagctccttg aaaacaaata gttatagttt tactaattgt ttataaaatt agctaatgat 14940
cctttgattt tttagttttt ttatacctta gctgtattta ataaatattt agtatcttct 15000
gtgcaattaa taagaacaat gggggccagg catggtggct caagcctgta atcccaggac 15060
tttgggaggc tgaagtgggc agatcacctg aggccagagt tcaagactag cctggccaac 15120
atgatgaaat cctgtctcca ctaaaaatac agaaatcagc tgggcatagt ggcacacgcc 15180
tgtagtccca gctactcagg aggctgagac atgagaatcg cttgaaccta ggaggcagag 15240
gttgcagtga gccgaaatca tgccactgca ctccagcctg ggtgacagag taagactctg 15300
tctcaaaaaa agaagaagaa cagtgtttaa aaacctgtta tttttacctg aattattttg 15360
ctacgacaaa tttatctttc aaattagatt ttatcaaagt agatatgtat tcacttttt 15420
aagttgaagt ctttctaaat gtctaaaacc aaaacacagt aatctcctgc cctacctttc 15480
cctgattcct gctccctcag aggcaatcac tttcaacact ttgggctgtt tcttcaatgt 15540
ggaggtattt acctttatat ttcataaata aaccaactgc tatttcttga catcatttga 15600
cttcatgttg ttatacatac atgtttcctt tccccatttt tcagtacagt tatatgatcc 15660
tttttgaata acttagtatt ccatttttac gttattatga ctgtgtaaat agtattccca 15720
gtgaagcccc ccacccaggt cactttgatg atgtttcctt tttaaatgtt gtgctttgtt 15780
tttttctcct tggagttagt aactgctctt tcagtattgt ctgctttgtt ttctatatgc 15840
acattcgtaa tttattctca aatgcttatt tagtttccac atttttttaa ccctgggcct 15900
agtaactcgt ttttctttaa aaaagaaaaa aaaaatttta tgttcctatt gctaatttat 15960
ccacaaacac tcttctgtat gtgtacaaat gcactgagta atttattggt ttctaattaa 16020
attctccctc ttgatgtcct ctgctcccat ctgactggtt gttgtctagc tatttttgtc 16080
tctaagctat ttttctatag tagtactata gcagtactat tctgagtttc tttcttccat 16140
ttatttgttt tggtcttttt ctttcatgaa tagagacagt ccccagagaa tctggtgatt 16200
cttgactatc tgttctactc ctctttaaag atgaggcact aaaaagccaa ttgggagctc 16260
ttggtttgag gctgaggggg ccttactgtg gaatgatcaa gtggggacct gctgactctg 16320
ggctcctgtt gagaggagca aaactgaatg gggatgagag aggggacctg aagctctaac 16380
tgcttcccat gcagcctttt aaccaatctt cctgttttca cctcactcca ggcctatctg 16440
tttctccttt atgctccagg ccttcagagc tacttgctgc ctccatcttt ctgaaatgca 16500
gtggaggcca ccatcctaat tagctttctg ctttgtggct tccactccct caaggcttac 16560
atttcagcgc cacgtgtcca tctgcttttc agcttctaaa atattgttga caccttctct 16620
ttatcctttt ggatttgtgc catttgtatc cctttgcttt ccctttagag gggtctctgg 16680
actagatctg tcatgtttaa tcagaagtcc tataatttag acttttcact aatttgtgtt 16740
tcctttcttg gtgttctttc ccctttaccc ccaactagtg gctctgaatt agtgtggttt 16800
tatgaaaccc atatccattc agccatggtt ctatgtatta tctcatttag gcatcacagc 16860
agcttttgca cagcatctgc tcaggcagtc tgtggctctt ctttccccga aagattgaga 16920
atacatctgg tgagaagccg ttgccagtcc cagcccctgc tttgagtctg gtattggtct 16980
ttaatctctc attctgtgtg ttgtaaagaa acaggttgtg gaaggctctt gtcagatccc 17040
aggaacatga aagaaatagc acaccctacg gtagtgacat ggccctgtca ccacccctca 17100
ttgaaccata aaagctattc agaggggcca gcagctgggg agcgactgta cttagatcct 17160
gggtgctgat gggtgttttg tagtttccaa gggaagttgc tgaaagtttt cttatcttga 17220
cactccaagg gcaagaggtc tttcttcaaa gagaagcgct tgtttcagaa aaagatgtgg 17280
aaaggacgta aaatcacagg ttcttcccca gttctgaaaa agaaatagga aggggcaacg 17340
tggcagtcag tgtgaaaaga aaccacgcat ttgcaggaag caagaagggg ttccgcagca 17400
ctggctgctt ccggcatctg cagtgcgagg gtaaacaggc ctactgggga gtcggttggc 17460
cctgggtttg agtcattggg ctgctgcttg gctgtgacct ggaacaagtt tttcccctct 17520
taatctctct gagatgagat tcctttgagt catatgccta cctcggtggg tggttacgtg 17580
gattaaatta tatcatgtat ataaagcact cagcctggca tgtggcatgc aggtagggct 17640
caagaaatgg tgtcagtgtg aatattctcc cctgaatgtt ggaatgttgt gtgaaggtga 17700
aacagggatt gtgtccctag ctcttactta aattcaaccc tgtccccgaa ttcttgctga 17760
ccacctgcta gagtgtgagg actaggagtt catgtgcttg gctgggcttt tgtccttccc 17820
attctctttc ttcacacaaa atgaacagtt gaactcaggc caccaaacct ggttgagttg 17880
ctgggtggag ggactctcct gggctctgag cctttgtgtg tgggaaccgc actggaaaag 17940
gtgtgcagag gccacgaact tgctctgaac ccacttgtga agagcaggtg accccaaact 18000
attgttagtg tctgctgtaa atgatatgcc tctgggttcg agcagagttc agccaaaagc 18060
cccacatgac atggaaatct gtcctggagc caggtttgtc gggtaaaagt tatgtagcaa 18120
atgtctccaa acattggcat ctgttgtctg ccgagactag gacaaccgag aatgatggag 18180
tgcttaagga aattaggatg gggcatgcga ccctgtaaca gctgataaac tgtttcaggc 18240
caccgtggct catccagctc ttttgataaa cagctttaaa agcattacgt ggtttggaaa 18300
gcattcttca aaaatggtta tattttccag acgcatgaca gtccactgtt cagtattatt 18360
taagggtttt aaattgtaga atcagattcc ttttcagtgg ggctcttgga actgtcgagg 18420
gctgatctgt ctgactccca ccaggacaat ctcacaacaa tattattatg taggtcgggg 18480

PCT/US95/05000

tcccctaggt ctgttaaaaa aaaaaaagtt cagggctaag cgtttaagag gaaaaactat 18540
ttctttcatt tctagctaag tctgatgggc cctttcaaac actgctttca tcatgcacct 18600
tttatttcac gatttctgca taatgaaaat acaagatcga taactgtgga ttatcgtaat 18660
gccttgagcc tttgaaaatg aacattttct agattataaa tgttcccttt gtaattcatt 18720
tcaaacttca tcctcccatt tgtcctaatt cccgaaattt aactgttgcc ttttgagcct 18780
cctaggaaat tctgggtatc ctttaggcaa gggaggtagc tcttggggga atagcattca 18840
ggccacaggc aattcatttg cgacttgggc tcttcttaga acatatgata agtacaacgc 18900
actgtagtga cagatttttt aaaaacccta ttaaagccca atatactaat gcagattttt 18960
ttttttaag ttttagagag attcatggga ttttattctt tttcccaaag gcagtggtgg 19020
agctgacaga gtagcatgga gcctcgtcct gatgtattgt gcggaagtgg cagcagttca 19080
cattcattca gtttgtcagc ataggatcag ttccttcttg actcaactct ctgtgatcaa 19140
aataagctat tggatgttcc ctttgggtac tggaagcagc ttggcccctt ggcaagagaa 19200
caggattgca aatcacaaga gcagagccct gactccagct ctgatgctac tgtgctttgt 19260
gaccttgtgc agacagcttt atatccccat ctcaggtcat tctcccccat acaaaggggg 19320
agagggtcat ccttgccctg gtcatgtctg catggctgag gtgaataact agttgtgtaa 19380
cttcctggag gagtggcaca gaggaagctc ccttcctagg gctggctctg ccatcaggga 19440
ggaagctgga tattagaatg aagaaaaagc ccatgcagaa tatatggcag cccgataatg 19500
gattctaaaa ataaaaaagc actaggttaa tctgcagctg tagtgtacct aaagtattct 19560
ttggcaggtt gtggccctag cctaatcccc agctggactt agcaccattt aagtgagtta 19620
catctcatcc ccgcaaggga ttgagtctgt agccaatttg gccttgtcac cacttcagcc 19680
ctccctctga tttcaccttt gggaaaacta caaagtggcc ccagacatac atagcaggct 19740
tgatcacatg ggtggagtct gtcaggacag catacatcaa ataaaatgtc cagggaacct 19800
gttgtaaata aaccacttcc cgcatgctca gtcatcgtgg aggtacttga atgtttagtt 19860
tcttttagct gatggccaag aaatcaatgt ttaaaaaaaa aaaaacaaaa aacaaaaaaa 19920
caccttgaca gaggcatttt gtacaagaat ggtgtgtggg tgtgaaaaag taaattccaa 19980
aacatatttc cttttagttc ccaaacccat attagatgag tacttcttag ccttggccac 20040
agtgctagag taaatagcag tgtcacatag ctcgtggaac aggcaaacca cagaatgtac 20100
aagagagaag cgtgcacacc agtgagtctg ctatggcagc tctctttgtc ctggtttcta 20160
catctcattt gtaagcaact tgtgttcctg cattttcaga gtttggccag tttatttact 20220
tagaattgca tgttcctgga atattgtcat aaaagtgatc ctgagataga aaaagtcaac 20280
aggaagcagg ggcattgagt ttataagttc tcagtctgtc ttggcccata ttaaagtctc 20340
attctcaggg gtaggtccag ctttccaaat tttaatatat cagagactcc tgatgcatct 20400
gggctcatga tgggccaaag taggccttca ggagtcctcg tgttacacac tcaacgccta 20460
atggagactg gattcattta cgtgtattaa tgtaacctgc gtgatcatgt gagtgcaagt 20520
gctttgtaga ttgtcctggg agatgtggca tattatgact aaagacttaa ttgaaccctg 20580
aacatgtata tgaataactg gagacagatt gactggatta cacatttttc ttgaaaattt 20640
cctaaattta gcctacctct ttgttgcctt ttatttccca gcttaagtgg ttctctataa 20700
cactatattt taaacaaacc agaacaaata gtatacaaaa gcatagacaa gagggatata 20760
acaagagatg gttttctgtg atccgtggca cctcctctct accctgcctc caccaccaaa 20820
aggggcttta aattaagatt cggaatggca aattcactta ccagctccaa acacagtaga 20880
caaggaaacc ttgtgaggaa aatccgagag tatatttaca gtttctgttc agaaatacat 20940
agcttaactt cgaaggagga agcgtgactt ttcacctgca gatagaacta gggtctgatt 21000
tgaaacagac cactggcttc actgaacccc atcaaagaag tctgcttctg cccggaattg 21060
gaaagtgcca gtgggcatgt agttgctagt atgggatttc tgtttttatt tttaacaagc 21120
ttgggcccaa ctcttagtat caagatgggt gaagacaaaa ctgaccagaa aaacacgtat 21180
caagtcagca gtggctcacc cctcagaggc catttttccc acctgctcct cttatacctt 21240
tggtttgttt ttggttttgg attttttctc tatgttcctc ctactctttc tttctctatt 21300
ttgcttgggc cttcgttaga agagttctag taatcatttc agacttccaa aattcaaccc 21360
agtagcctca ttttacaggt ggacccacta atacacaaca gctcgatgtg acaaaccata 21420
gactcacagt taatcacttg gagagcctgg attcacctcc gcgatgacct gcctttccag 21480
ccctccagtg gcgtcctctg tagtgagttg taaatgtgcc actctagaac attccaggaa 21540
agccctcctc ttgggctaaa ctctaaaact aaaatgaagt cctgcccatg tgagctgctt 21600
gtttaacact ttggatgcta atcagagcat taatgagaac acatggatag attcggcagg 21660
tctaatgctt gggaccttct cctatttgat tccataagac taaatccccc ataaacactt 21720
ccctcctgtg cacacacaca tgcattcaca tacagcactc acgtatccct ccctatagc 21780
caaagaccga aaaataaatt tttttttttct acattaaaaa taagaccagc tagtaaccag 21840
ggttggcatt cccatctcct gtggaacctg gaaggactag cagatagcta tagagatctg 21900
tctccttttt agtgtggttg tattaagggc aatcttgcct cccatggcac cccagaaaat 21960
ccaggagttc aagtgggggt gcactgtagg aggactcagc agctgtttta tggaaggttc 22020
gtcagggatc agactgaaga ttttgctttt gtgagaacaa agtgaaatgt gacattcagg 22080
agcagctcgg ggcctatata taggggccca gggcctgctg ggatggggtt ttacacttgg 22140

09508682 - 091201

gctgtccttt tgcccttccc ctgaactctt ttcacttcag tcatgagcaa acagtcagtg 22200
cctgaactaa caaccctgta gtcctccgaa gcacggctgg cttacagtac cgaacaaagg 22260
gagggagtgc cgcgtgggcc ggcccaggcc gaggaatgcg gcttcagggt tctgctccat 22320
aaatttaacc agcacgacga aaaggagata atatgagcct tcgtgatgat ctgaaagggg 22380
gaggttctgt gtcccattga ttgcggtctg gcccaatgcc aggcccaagc ctgaccgaca 22440
gttgaaccat atcattaagg cgtgtaatac agctcgagtc ttgtactgcc gccaatgagt 22500
gcatatccac agggcaaaag tttataaaga gtcgaggctg tcctgtttaa ccctctcaca 22560
ctgcatgtaa tagaaccagc tgccattcag aacttgccca tctgaggtca taaaggaaag 22620
cctgcacgtt tcttttcttc aaacagcttt tcaggactgg ggagaggaag aaacgctgtc 22680
tagagagggt caaggcacgg tgatgtttct ctctggagaa gcaaagcagt ctgcctccct 22740
ccccccggcc agaaacggga caccttagtg ctttcttcag agtagctctc tgtttgtggt 22800
ataatgttgc tggaggaaac agggctgaca ccacaggaaa cctgcctgtc tccaaggagg 22860
ccgcatcggt ggcagaggtg ggtcagatgc cggccgtgga gtgctcttgt caagcttggg 22920
atgatgccgt tttccttccc catcacctcg aaagctgtta atagccttgc tttctggcct 22980
tccacagcta cgcccaggtg ctaaaacaga gcaggtggaa ggccgcccca cggagtggcc 23040
tgtgagccca gagttctcac tgtccgaggc cggtggcccc atgggaactc tgtccattca 23100
atagggaggg catgtagaaa taggcacatt gtcacagcaa ggcctggagt ggcctgggtt 23160
cttacagtgg gcactgcatt gaggaaatgg gcagacaaac aaggatttag cataagtata 23220
gtcagaaaga aagggctgcc tgtgttcaaa ggacaaaagg aagaaagtgg gcgaaggggt 23280
agtttagtcc tgtccatcag ccagtcacgt tctttggcca aactcgggac ctgcctgtgc 23340
tttgtccatg gtgtccagga agaaatctgt gtctgtcact tccagattgc tgcttgtctg 23400
caatggacaa tgcctcttag gcagacacct gctcgggatg acagtgctgc agaaattgat 23460
ccaaaacatt gactagcttg catggtatcg ctgtcattag tattcagtct tcacaaccac 23520
cctatgaggt gggtgctata ctttccccat tgtacagatg ggaaagttga ggcacacagg 23580
ggatacgtaa cttgtctaag atctcagagg tagtaaggaa gggtaccaga atgtggaccc 23640
tggccaactg aacacagagt acatgctcct aatctctgtg ctgcttctgg gccatctctc 23700
ggtccctcac atcgaaagac ctcatgattt caatccaaag catctgacca agtgttaggt 23760
ctacttcctt tcgattcttg gatatgaagg gtaggagctt aatatctgcc tatagcccag 23820
aagatttgtg caaagaccct ggttcacttg gagaggaggt actataaaat ttggacccca 23880
caatgcgaat gaagggtatg tattgaattc cctcagccca ccagcttaac acagagacag 23940
tgtgagggat atactatagc tgggaagctt ggaagggctc atgttcaagg gcctctttgg 24000
gccaaacagc agtgggcctg agcatggaga gaccctggcc ttttagtgcc agtgcctaga 24060
gaagcaggtc actaagcttt gtgcccagga gctgtgctgt ccctggtcca tccctgtgta 24120
ccccattcca ctcctgaaat aatgaactac tgcagccttc caagttcaca gtgtgccagt 24180
ttgtcacaga atagcagtga cacttctctg ctgcaaccca tctttgctct gccatgctgc 24240
caagaccatc ttcaccaggc ggtaacctgg gaactccagc tggtacacag tacaagaagc 24300
ctccgcagta gactgtccca ggtgcatgtg ctcagtatgt catagccatc tccttttgga 24360
ggccagggag agcttctgtt tgggtgccac ggatcctgga cagaagcttt ctagaggtag 24420
gagaagagac taaatggctg gccaacccag agattgttgg attgtgttat gattccatgg 24480
tcaaagtgct ttaaaaacct agaaattggc tctggtagtg agtcccagga tggagctaac 24540
ttacgatctg gactccatta catgattgct aatcctgaag ttcagcaaac gttggtactg 24600
gctgactttt aatggagtac ctgtttgagg gttctcctca tcatgtattt aaggttaaat 24660
tgtataaagg aattctgctg ctcttttgaa attttctggt tctgtttaac catacctaaa 24720
aatgccatga ggtagccaga tgattgacta actgggattt atggaaattc ttatctgcaa 24780
aaatctcaag acaaagaggg cactaactag aaggttccca gtgctttatg taacatgcag 24840
aaggaagtct ggtctcagct tcttggatct gagcaatcct ttggaaaggg agcaatgaag 24900
agcagtaact gaagactcat ttcctgcctt ctgtgtgact cactctcctt tgtcaacttc 24960
aagtttgccc taggcctgct tgcttctctc caccccaagg aacttggtct ttggaagaca 25020
caggcacctg ccctctctgt ctgccttttg cccccaggtc cagagggaga aacaaaccct 25080
cagttggagg aaagtctaga gcacaggctt tgtgttgctc agagaagcat gacaggaagt 25140
ggtgctgttg cctctgcatt ggccgactcc tggctgcacc tgcttttccc agaggcacgg 25200
ggaggcccag gcaggggccc agggcctgct gctgatcagt ttgtcctgct tgcaagtctg 25260
catcccagta cccaacgggg ccaagtagaa aaggcacata gtgtagtgtg agccgtagct 25320
gtcaccagat gggtctttcc cctccgtgcc caacccttc cctgacctga aagggcctag 25380
cctctttccc cactggcttc caccaagttc taacacattt tatatatatc gatttccagg 25440
cttgtagagg caagacctac agtccaggag ttcaaatgga ttcagtgttg ttggttcttg 25500
tttcctagaa ggacaagtgc tctgaaggtt tggtgtcaac tctgacccaa ggggtgtatc 25560
tgatttttat gaaggcacag aaatgcacct gaggtgaccc caagtccttc tcttttattt 25620
tttgatttcc caccacctgg atcattaatt ctgctttcaa gggggatggg gaaaggagaa 25680
catttcaaag caaagttgat ttggtctctg aaccagcttg tcttctaggc tgtagttcac 25740
cctgatgaga atcagaaagg acagtctgta aacccccttca ctctagtgac tctgcagctg 25800

09950082.090704

09504208 - 062702

```
gggagcctca aaaccagttc cagatgttct ctctccctat attggccaga agggaatttc  25860
gggcaagcaa ggaggcagag agcttttgcc cattcattga gtacccctgt ctgcaaactg  25920
tgtcttgctt catggcactt tagggagagt gctgagcacc tgggtccatt tgggaccagc  25980
cagcccttcc tgttcctcgg ttagaggcat gctgctccaa gctggctggt tactgcaagc  26040
aagagaagcc cgccttcctg ctgttcaggg tcagaaagca agaccgtgct ggagaagtaa  26100
gtcaggcagg ctaggaagga gacctgcaga tgacccttgg gttaacaaag caactttcac  26160
ggccctgttc accaccagct aggatagtac agggctttgc ctcccaatct tgggagacga  26220
ggcatagata gtaatggtca actgatggcc ctttactctt gagaaactcc acccagcctc  26280
cccttatcca gaagaaagcc attcctgact aagcctggcc attctgacgc cttctttctt  26340
agtctgcacc cagcctgtgc tgtatgcggt atatgatggt agaaatttgc actcttcatg  26400
ctttgatttt aaatgcatat tagacatttt ggcatttgtg cctgaatgct ctctgtatca  26460
tctttttaa aacatagttt gattatgtaa gttaaagaat gtacaaatgt aaacttctga  26520
aaatacatac aatatatgat ttcttagagt gtatggacac tgctccagag gccttgcatg  26580
aattatctct ttaatcctta caaaacgaat gtgatgggta ctattattcc cacttcaaag  26640
aagaaaataa aaaggactta ttctccctgg gcattgacaa gcaaagagat taataatggt  26700
aaccccacca gacatctcta tgggtatata tgtgtatata cactagtata catatatgta  26760
tacatagtat acatatatgt atacatagta tacatatata tatactagta tatatatatg  26820
atttgacatg aatgggagta catatgttga tgtctaatct ttttcactcc acaatggtgc  26880
tagaacgtct ttccattcca aaaatcattt ttaacattta cataatatta taatacaaat  26940
attccataag ctacttaact agttccccat tgatggatgt ttttaatttg ttgctgttgt  27000
aagcatcctc tacatatatc ccatcttact tgaataattc tctccttagg ctaaagtcct  27060
aaaactatga ttgctggatt taagggtgtg tatattttct gctttgaaac acattgtgaa  27120
ttgccttcta gggagttgaa acaatttgta ctcccaccca cagtgtgtga gaggactgac  27180
tcctccagcc gtgtaccagc tctggctatt cattcattca gaattcagtc aagaattaca  27240
tgaagtagct gcagtgtgcc agatactgta ctcagaacca ggcattgtta ctcttttaag  27300
tctttgccaa tctgaaagag tgagtatctg tgttactact tgcatttctt tgagaattag  27360
aagcgttgaa acatcttttc gtgtttcagt tggccatttg gatttttctt cttttgtgaa  27420
ttacattgcg tattctttgc ttcaatcttt ttaaacccgt taaggtcaga atttgtcttt  27480
ttagtgtgtg gttttttttt aattcttatc tagtgttggt ctaacccttc caacagttgt  27540
catttagcca gtttgtcatc catgtaagta catatctttc ttccagatat taacaaagtt  27600
tatatcagtc tcttggtgaa ttccgttcct gtaagttaga atctgcatca tgactttata  27660
aaagaccatc actgtgccta cagttcttta ggaatcgctt tggcattaag aatgaggctt  27720
cagccaggca cggtggctca cgcctgtaat cccagcactt tgggaggccg aggtgggcgg  27780
atcacgaggt caggagttcg agaccagcct gaccaacatg gtgaaacccc gtctctacta  27840
aaaatacaaa aattacctgg gtgtggtggc gcaccctgt aatcccagct actcaggagg  27900
ctgaggcagg agaatcactt gaacccggga tgtggaggtt gcagtgagcc gagatggtgc  27960
cactgcactc cagctgggca acagagtggg actccctctc aaaaaaaaaa aaataaaaat  28020
aagaatgagg cttcagccag atgtttttgg attatatgtg gcgtggccta ttacatggtt  28080
tttatttttg tttcctccta tttcttagta tttctttcca ccagttcctg ttgtaaaacg  28140
tgaccagttg gtactgatgc tgtacatcct tgtattagta aaaatcctgc tgtgcctgga  28200
ggcagggacc tgcttgggcc aggccttccc aggaagcccg tcctaccctc tgtagcatat  28260
agtgccggac caccccagcg ctcccactta cctccttcac tctttcattg ttgatacatg  28320
ggctaggttt cctacagagt cacttcaagg atgtagatct tatcctccca attggattgt  28380
gagtttgttg ttattgcctt ttttggtatt cctcaaggat gttcagaata cctcacatag  28440
tgatggactc agagtaccta ttaaagagat tttcattaaa atcacaccat tcagtaagtt  28500
gaccaagtac atcaagagag tcagaaagac ccaagatcta gtttggcttt gccaggcata  28560
gcttcctcat ccataaaatg aaatactagt aagatacttc cttatgtgaa tcttgggagg  28620
ctcggagtgt ccagtacaca ttcagcactc agtcagtgca gctgtagaga catagcgtgg  28680
accttggtgg cccagcagtc tcaatcctgg tttcttctga cctaagattg gtgggaaagt  28740
acagataaaa gctggttgag gaggtgttga tagcacagag tgtttttacg gagtgtcctc  28800
ggagggttac atgctccttt ttgttgaatc cgaatctttt ttttttctta atatggagcc  28860
tcataatcat tcaaggactc agtgtgatgc cacaggtttc aaacttgcca gttcgtctct  28920
tatgttctgc caatttttta aaagtgggaa tatgagtgca tgtgcacgtg tacacacacg  28980
tgtgtgtgtg tgtgtctttg tgtatgtaaa atgcttggga taaaaaaaga tggatcaaat  29040
tttgtctggc atggcatagc aactctcacc tctagtatcc tctaaacatt taaccaaatg  29100
gactttaact ggtttacttc aattctattt ttattttcgt agtcatttaa atgtatgggg  29160
agccaactct ttcaaatgag acattttgtc attaaaacat gttatttagt ttaaccgcat  29220
gggcccggct tcagcaacat tgaggactgt gaagagggtt ctgagcggct gttctctcct  29280
gacctgaccg cagcagtgac ccaccagctt gcaatgcacg caaactgaaa caggcaggat  29340
ggccagccca gggttgtctg cacggtggtc ttggcatctg taccttaggt tgccagctcc  29400
tggccctcct tgcctgcatt tggtggccct tggccctgcc gtgtcatatg gcacaagagc  29460
```

ccttctggcc cgcatcaccc tgtgtactga ttaggcagga atcagcaaat ccgttgagtg 29520
catgtttaat gtgacacaga tgtgggacat actacagatc tttctgcttt acaaattttc 29580
agctttttgc atttcatcag tgttgcttat tatttacaga atgtaacttg agacatcaga 29640
acagattgta atttttaaaa aggttgttgg gggggtgggc ccgcagggga tctgggagaa 29700
aaaatccagt agtgtggaat gttgtttgct gtccagacca aacaaaccag tttgccaagg 29760
gttgatggac tatgacaatc agtccaattc atgttaacac tgggggcact taattaaaag 29820
gcagcttgac ctccttatca ccaaataaag aataatcttt tgttaccagg ttgaccgtcg 29880
cagcaccagg cagaaatgta ccccttgtag aggcactgaa gggtaccacc aagctgccag 29940
ctcgtgtcct gcctccttcc tgtccacaga gaaaggcacc attgaaccca gtccccactc 30000
agacatgtgg atattcttgc ctcatgcctg ctgtggcttt acacccaggc gctatggcaa 30060
gaggcggaaa aaagaaatct cttcctttgc ccaaaaatcc aagatactct tgagggcatt 30120
ggaatgatga gccaggccag tttgacacaa gttcaaggag aaggtaccat ctcttgcttc 30180
tagaggggca catctggcta gaggtggccc tggcttctga gaaagctcag ccataggtta 30240
catttaaggg caaacaatga aaagcaccag ctggtcggga ggaagatgag gaggagtggg 30300
tgattggttg cttctttcct gtgtctagtt ctaaagaact taaaacttgg gtccaaaata 30360
atgagagccg tgttgtaaaa atcatttgaa gagagttctc ctggggaatg tgagctagtg 30420
ccgtgacctg atcccttggt cagatggttc tgagctgttt aagtgctgag tgtcaactgt 30480
ctacagggag ccaggcccct gaggagcggc cagggttcca agccccactg ttcttttcct 30540
tcctggaaaa gtgcagacgg tgcacgttcc ccggaggcca ccaggcagct ctccagttgc 30600
cctctgggtg aacgtgaccc aggtcggtaa ctttctagtg tccccccccac gttggaatga 30660
tcagcattcc tgtactccag gggttcttga gttcttgagt tgttaccaac gccctgcctt 30720
tctctggctc agattcagag gaggagttcc actgcggact gccgcttctt caccctctgg 30780
gcttcggaag cagcacctct ggctcccctg cacccagtcc tcagtcttgt ggccctggtc 30840
tgccccttta tcacatgtct tgagcaccct ctcagcacac agcaccgttc tgagcgctga 30900
ggtgcgacca tgcatagaag agacaagaat ccctggttcc gcatggcttc cctcaacacc 30960
tacgtttcca ggccatggct tgggttcaga agaatcaccc tccctggaag agatgagtga 31020
ctggaaggag agcatgtcac tggctcccct gagaccctcc caagagcctc agtttctccc 31080
tctaccacct gaagtctaac tgcagggcct gaaacagatt ctctttaaaa acccatgagt 31140
gtggtgactg cataggtttt cattctcctg agttcttaat ttccgtgtcc ctagcacttt 31200
ttgaagcatc tgctcctgtt gccccctttct tttcctcctc accctcctcc atagtctctg 31260
tttgatagta gaaggagatt taaaacctcc aggctgagtg aacaggcggt cttgaaaaag 31320
caaacaaatc gggtcaggca cggtggctca cgcctgtaat ccccagcact ttgggaggcc 31380
gaggtgggcg gatcacaagg tcaggagttc gagaccagcc tggccaatat ggtgaaaccc 31440
cgtctctact aaaaatacaa aaaaattagc cgggcatggt gccgtatacc tgtaatccca 31500
gctacttggg aggctgaggc aggagaattg cttgaaccca ggaggtggag gttgcagtga 31560
gccgagatca caccactaca ctgcagcctg ggcgacagag cgagattcca tctcaaaaaa 31620
aaaaaaaaag caaacaaatc acaaagcagg tcccctctgg gggctggagc atcctcatat 31680
ctgcttggct ttggtcactg aaagaggccc tgggggaggg ggcttcaggg cttcccaggg 31740
gagaggtgac agttaggaca cacgcctccc ccacttcagt caaggcagct tcattgtcag 31800
cggttgtacg tactaagatt gtgttacaaa cttcatttgc agaaagtgtt ttacccctga 31860
aatttttttt tgaaagcgcc tgctgtgagt tttattaatg gcacttttct aaaacttcat 31920
taatttcaat tatgagaatt tgatatctgg tgtaattcat tgagctgcta gtttgatttg 31980
ctctagctcg ttttaaaaag ctctgtcagg caacaggata tggatgggag tgggtcaggt 32040
gagtgaaaac gttttaagca ctcctttctt cagaaaacac ctctgtaccc acatggggtg 32100
tgctcctcag gagtcattca gacaggtcca ggagaacttg tcccccaggg tgctccgtcc 32160
agatacaatt ttaaatactg cactttcgca ttttggtatt ttcaatggac ttgacaccca 32220
ataattctga ataaaggtag gaaagaggga gatgattaac ttttacaagt acctactatg 32280
tgccaggcac tatgctacac attcttcata ttttatctca acattatcaa ccaagtaggt 32340
attaagttct cacctattga tgaggaatct gaggctaaga acaatctagt aacttcttca 32400
gtgtcaccca gctaataagt gactgggatt tcagcctgtg tttgtctttt tccagtctat 32460
gtttgttcct ttatactact ttgttcttaa atttcatctc ttctcttaaa agaggtcaac 32520
tttgggagaa ggtagataat atataaacat tgaaagaaaa agattatata atcatttgcc 32580
agaaataaat ctgaaaatat tgggctggac acggtggccc acacctgcaa tcccagcact 32640
ttcagaggct aaggcaggaa aatcatttga accaaaaaaa aaaaaaaaaa aaaaagtagt 32700
gaaaatgtat ggtttattaa tgtaatcagc ttgttattat tagcatgcgt acttaatagc 32760
cacaaaataa agcttaccag agatggtgta tttcggtcct tgtgaaatat cttgggattg 32820
gcattagagg tgacaggtta gcaaggaatt tgataatggc ttgagagatt ccaataagca 32880
ctacactctc tgactcagaa tgttctactt agaacacaaa gaaagcttac aattgtaaag 32940
cgccttgttc ttccatgatg ttgaaagttg caaaccactt tataggttgt ctactatttt 33000
gtaaaagcaa agcaaaccca gaatgcatgc aaaaattatg gcctttaaag aaatccaagc 33060
cttttaggct ccattcttac tataacatga tctattttct tggaattctt tataaagtaa 33120

09509082 - 090204

ctctgcccct ccccacccag ccattaacag gtagtctcgc ccctgaggca gttgactaag 33180
aaaaaaaatc tggagtattt ttgtcttaga gtttaaatcc caataggtgt atctgttggc 33240
attagtccta ccagctgtca cagttgcagt gtcatggggt ccccaaaaca tgtgttaaat 33300
tatgggaagc cttgacccct ataaacaagt caggtgtgaa tcccactgat gggagaaaac 33360
ccagcccagg aaatgtcatc cctgctgctg gatgtcaaat tgctaaaaac ttaacaatat 33420
caatataatt tctaatgatt tcttgaatca acatctttct tacattttca atggcaatag 33480
tacaacatgg gattttatgt gtgttatgca tgtatgactt gagaactcta gggagaggta 33540
agtagaatgt taacaagaaa gcaaagggga aaggaaaata cttcagtttg aagcagtgag 33600
cctccccagt aggaaaacta agtacaagag gttggatgtt acaccctagc ccatcttaga 33660
tcccagacac ctcaactagg gttcctcgtg tgcacccatg gcactctaaa taatacacta 33720
ataaaaagaa taggtagcat tttatcgagt gcctattatg tgctagactc tgttctaagc 33780
actgtacatg tattgactta tctactcctc acaacaaccc atcattaccc ccactttata 33840
gatgagaaaa ccatcgctcc aagaagtcac ataatttgcc tgtggttaca gttcgtaagt 33900
ggtggagctg ggattcaaac ccactgggca ggctggctcc agagccgatc ctctcagcca 33960
ttatattatg ctgcctactc tagtgctccc tgtctctcct actgcttccc tgctgtgttc 34020
ttgttgccat ttctgttcat ctcctccact gaattgctgt aagctccctg gatacttaat 34080
tcatcccagt cttcttcagg acctagtgct ggcctctgca tatgatagtt tgggaaaggt 34140
tggttgaata ggggactgga ggaggcaggc acaaaccatt tgcagggctc taagtaggct 34200
cgtttttctg gctaccctag tttggatcct tagtcagtaa ttccatttaa gaaccaatct 34260
ctactagcat agggtttctt tctgcccaac ctattttcca tgtgtccaaa atccaaattg 34320
tcccaaccta cggattgaat actatctttg agtgggttct agaaggtgta tttctctttc 34380
tcttgaaacc ttggggaaga atttctcatg taaacagagg caaactttag aaattttcat 34440
cctctaatag agtcttctct gattacagtt tgcactgaaa ggagtaaaat ctgtttatgg 34500
agaagaaatg cttttccact tcgtctttag aagtagatgc atgtggccaa gaggagggag 34560
ctacacgtca gaggtagttg cagcctatgg catgatggga gctacaggtc cgagatagat 34620
gcagcccaca gcatggtggg agctacagat ctgagataga tgcagcccat ggcatggtgg 34680
gagctacagg tctgagatag atgcagccca cggcctggtg ggagctacag gtccaagata 34740
gatgaagccc acggcatggt gggagctaca ggtccgagat agatgcagcc cacggcatgg 34800
tgggagctac aggtccaaga cagatgcagc ccatggcatg gtgggagcta caggtccaag 34860
acagatgcag cccacggcat ggtgggcttc ttgggcttgc agacattgta ctgctgtgga 34920
taccagaggg tttttcacca attcgtctac tctactgcag acagtactat ttagacagac 34980
tgcggggttt ctcttagaga aatgacaaat gtttgattag gccatttggt caagaaccct 35040
ggtatcttgt agctgttatc agtgaccagt attggaagag gtagtctgga ttgaccttcg 35100
ttctcagtct aattgtgcac actcgagcac agtatatatc agtaagatac ttgattaaaa 35160
caaaagccct ggacacatac ataaagtgaa tgcaagcaca acccatcaca caacccttaa 35220
ggaagatggc agccatcagt tgaataaaca ttctatgatg ctaacgtcac atgtgtgaca 35280
tacactttct actcacttac tgattgtttt tgaacatcac ttggctgata gacattggcc 35340
atgacagact tctcaaccaa attaagctgt gtaggggtat gtgtatgtgt gcacagcatc 35400
tgtcttaact aacagaccta tgacatagtt actcatcgta taagctacga ataattaatg 35460
cctggctaaa tgttgacttt caggctgaaa ggcaagatca accaagtgga attggctgga 35520
tctccctgtg tcaccttgtt tggatttact gttgattttt tttttaaaag acatgagttg 35580
ttactactct gatcattggt tttgggcctc cggtgtatat cagatagcaa tggccagatg 35640
caggcacact ctgtattgat tgccctcact ggaaggatat ctgcagtgta tcagccactg 35700
tatccacagc cccttccctg ggggaagagt cctccatgct gtacagcaga ctccctgaca 35760
ttttcataga gttcaaagct caagttggtt tggtgctgac attctggatt agctggttga 35820
ctggaaggac tgcttctttc tatacactgt gaaatttgta aaccgcagca gctgagggct 35880
taacatggcc gacaagctcc agctggcagc aattaaatat accgcagacc tttggccaaa 35940
caaaggtttg tggaggcaga gttgctgcat gtgcgctgaa cagactccta ggttgagtgt 36000
tggttcataa gagatgctgt cgactaagga gaggtgagtg ggtggatttt ggccacctct 36060
tgttcggtga tccattgtcc ccagaattat tgtatcaaga ccctgcccaa gtagcagcaa 36120
aggtggtcag aggaaaggaa caaagccacc agggaggccg caggcctaac agtggtgggc 36180
ctgagtcgtt tagacgttga tctgctgctg tagcaccaat ggcaggatct gcagctactc 36240
cacttttta aatttattaa tttatgtatt tattgggtac cactatgctg taggctatag 36300
gctgaaagga gaagatggga atgaaaaaac aataagaaga catttaatat ccattcaagc 36360
agcaaagatt caagagtcta gaccagtgct atccaaaata caatttaaat ttaaaattca 36420
gtcctttagt tacactggcc acatttcaca tgctcagtag ccacacgtgg tcagtagcta 36480
tgtattggac agtgctgtcc tagacaatac caagtgttgg atatagatcg ctagggcccc 36540
ttaaatgcct cattggcagg aatgtaaaaa tggttcagcc acttcgaacg cagtttggat 36600
tatcttgtta agtgaacgtt tatatcttgt gagccagcaa attccccta gatagattct 36660
caaagttcac caggaaacac gtacaggaat gttcataata gcatcatttg taatagcaga 36720
acctggaaga aacccatgtg ccatcaacag gaagatggat atatcatggg atagtcatac 36780

09550388.030104

aatggaatat gaacaaagca gagacatggt gaattaatca tggctacaca caaaagaata 36840
cctgaatctt agcaatgtga cagcgacatc ctttttcaaa agcccaaaac taaacccaaa 36900
gaacataaca agaatgtact ggagcatcct ttgaaatgtg gtaaggctac ataaaaaaga 36960
aaagcacagg aatgagaaac acaagattca gaacagcggc tgccttagtt aaaggaggaa 37020
cagggatttg gggtggcaga agaccaactt gtggtccacg attgagtgat ggagtttttt 37080
ttttttgct ttcacagatg tttatttcaa ataaataaag agagcccaat gatgagagtg 37140
ggccttgaac tgaggataat aagcccagtc ctaaagacca gttattaaaa aaaaaaaaaa 37200
aaaaggactg gccgggtgcg gtggctcacg cctgtaatgc cagcactttg ggaggccgag 37260
gcgggtggat cacgaggtca ggagaccatc gtggctaaca cggtgaaacc ccgtctctaa 37320
taaaaatata aaaaaattag ctgggcatgg tggcgggcgc ctctaatccc agctactcgg 37380
gaggctgagg caggagaatg gcatgaacct gggaggcaga gcttgcagtg agccaagatt 37440
gcaccattgc actccagcct gggtgacaga gcgagactcc atctcaaaaa aaaaaaaaaa 37500
aaaagactag agtcctttcc ctccaggtgc tcataggctt actggaacat acaggaaagt 37560
cacttaaaaa tggacacact gtcactgagc atgaacaaat gtaggactgc tgttacatgg 37620
tcatactcgt ttaaaaggcc tacttgaacg tacagtgtca catcaacaga tgaagaaaac 37680
agcgtcgtca cacagtggcc tgggctgaag aacttcactt taaacttttt gctggcttac 37740
gaggtttgaa aacactagct tactgttagc tttttacatt attttagtaa ttctttaaga 37800
ttggaactaa atttgttcat atgcagtgac ttcaaatact ctccccctac ccacagccta 37860
ccaacttgga cctgagaagg taaattttta gttgagtttt agagaagaaa gaagagtttt 37920
tcaggcactg acattgatga ggtgatacag gagtgggggg aaaattcctt taatccagct 37980
ttctgcttct aggaagagta tgccttctgg aagtccttgt attcataaga ctgtaacaga 38040
agatgtttcc ttttagggta aaattgaact catctgtctt ttcttccatg ttgatgtgaa 38100
aaattagcct tgaatgccac agtgagctcc cctagtcagc agtgttgagc actgaatcca 38160
accttgccct tgatattatt tgatcaaaag tcaagaaccc tggaaatggg aagatagttt 38220
gtggcctgtt gtgaagacag tcaagaaaag aaacataatg atagtcagtg tgtatcctca 38280
ggggagccac tctgcttttg tattctctga tgttttggtg ggtttgcagt ttacaggtta 38340
aaaaataatg tattgggagt gggggtgagg ttggatcact gaaacctggg taaggctctg 38400
agggagtcca ctgagtcagg aaataactgt ttacactaga aagctgtttg atcgtgtgag 38460
aagatcaaca aggtgagccc tttactccca ttctcaacta ttctggagct gtcatgagat 38520
taaattttta agagctcggg tccagaaaca agccatcttt cgttggcttc tctggcttcc 38580
tcggatccac cagaggcatt taggacttca gcaagttttc tcctgcctgg tagcatgttt 38640
tccctcagct ttgagtacta atgaaaatcc tgcttcatgt aagggaaagg cctgtcatca 38700
gtgtccgctt caggacactg ccgtcatgtc cctttctgtg ttttgatcag tggggcagac 38760
agagacagcc ttgtcctttc tgtcaggaag atggggttct agctgcttca tattttgcct 38820
caatgttgat tttgctttca gggctcaaaa tccttagtct tcaaactctc caccaaagct 38880
tgcatactgg ccttcctgtt tagctcaatt aatggccctt ataccgtctg ccagccacca 38940
ggcactcact cgtttattcg gcttatcctg actgctgctc taccataaac cagacactgt 39000
tctccatccc aggaatgcag tgaatgaaac aaattccccc tctcctggag cttccagtcc 39060
acatgggagc caagcagtaa ataacatgtt tatccacctg ggatggaaag caaatgtgct 39120
ttgagcagat gactgacttg atgtaactta ccttttttt ttttttttt gagacagagt 39180
cttgctctgt cgcccaggct ggagtgcagt ggcaggatct cggctcactg caagctccgc 39240
ctcccaggtt catgccattc tcctgcctca gcctcctgaa tagctgggac tacaggcgcc 39300
cgccactccc ccgcccaccc cagctaattt tttgtatttt tagtagtatt tttagtttca 39360
ccgtgttagc caggatgatc ttgatctcct gaccctgtga tccatccgcc tcggcctccc 39420
aaagtgctgg gattacaggc gtgagccact gcgcccggcc gatgtaacat cttttgaaag 39480
ggccattctc attgccatga ggagagtgga caaggatgga aggaaagaga acaaattatg 39540
agactactgt aataatatat tacaaatcca gggatccttt gttagttatg atcgagatgg 39600
agaaatagtc agatttggga tatatattga atttgagcct gcaggcctcc cagttgattg 39660
gggaagatat gttgagacga gtctgaatca aaccttacgt tgaaagtgat gaggaagcag 39720
accctgccat attcctcttg gagagccttt gggcttctac catgtagcct gacagagagg 39780
tcagcaggac tgccctgggg aaaggatact ttattagcct gtgtaggcag ttattggaat 39840
gacagcaagt gctttgctag gcaaggagat aagaacagag ctctgctacg tggagaggca 39900
cgccaagctc cttcccccaa ccccgctgcc tgcagaggtt accagcatcc tctcggcagc 39960
agtcgtccag cttctctcct gatgggttag cagcggcccc tctaccgccc tccccacttt 40020
cgatcgatat ttgggctctg agtagccaac tgtaagcctg cgtcttgaag gaaaaattga 40080
gactggcggg gtatgtgagt gtgtgatata aacacaatgg gtttttttact ctttccctta 40140
gtgcagatca ttgaaacttc tataaagtct ctgtaatacc cttagagagt acaattaata 40200
gtactgaaga cgtccttata actgaacttt tgtaaaatta ttgctggatt tttgtctttc 40260
cagcacacat taaacctcac caaggtatgg ggctgtcctt cagatgtcac agcctgatga 40320
actgagtgct gacctggctt tgggagcact tttcagttat cccagctgtg catggcccat 40380
tgcatggcct gtgacaattt tctggggttg tttctgtcca tatttccaac ctgacttgcc 40440

09509082 - 091204

caccagggca ctttctgccc ttgtaagtaa atctctatgc tgcttactgt tagttcctgt 40500
ttctgaagtg ctgattcgat gtgtaaggct tctcctctct tttagatctg tctagagagg 40560
agtgttttgc ttcagtgagc tccaggaaca aataataagt acagcaagta caaggccgag 40620
gacagaccca gtgcactctt atcagtcatc tgaaatatgc acagcctttc caagacaaat 40680
gtgcactcct gtttctagga aaacaccaga aagtacttac caattaccct gtatatgctg 40740
tgtggaaaaa gacaacatca gcctaccctg aaagccataa caaagcagat tcctccgggc 40800
cgccgacagc tgagtggccc gagttagagc ctctgcagaa tcccagcctg tggcctgggc 40860
caggtccagg tccaggtcca ggtccaggtc caggtccagg tccagggggc attcttcccc 40920
tcgcatgatt accacgtccc tcacccttg cccaaggaac tgacctcatc ttagaagaag 40980
tctcaagggt tggtgtgttc ttactaagtg cccaggattt tcttccagac ccatcacaaa 41040
tccaaagatg gctctcctga agagaggcct aaaaaagagg gtgcggccca gggggatcta 41100
ttatagtaat aaccgcagga acgagagccg ccgctggtgg gcagctcacc atccgccagg 41160
agcaggcttg gcgggcactg ttttatttgg tcttcacagc agtcctctaa ggtaggtgtc 41220
atcgtcctgt ttcagagaga aaacggaaac tgagggttaa ggaaggtaac caacttatcc 41280
atgatcacat ggccagaaaa tggtagaggc aggattcaaa gtcaaatgag ggtctttaac 41340
cgctatttca tggtgtattc acaggcagta ctgtaggtta attctgttca ctaaatgtaa 41400
agtatgtctc gtattacaga gtgcttttgt cttagtgaga aaggaaaatc attttaacct 41460
gcacacttaa cctcttggct ttatgtccat ttacccatct aggactcaag cacagagggt 41520
tcggaaaccg cgttgctgca cggggcccca ggggctgctt ccccgatatt ctgagagcca 41580
ggcggaagga caggagcagc tcttcaaact cacagacaac atacaggacg aattgtaagt 41640
tagagcatgg gaaaccagcc ctgtgggtct actgagttgc ctcttctttt gatcctgaga 41700
agtctccatc tgatctgagt tattttcatg actcttggac cttagatctg gtcaaagaat 41760
tccttgcccc aaatgttttt tagatttaga tataactgat gctaaacagc cttttactca 41820
aagcagtggt tctcaactgt gtgccatagc ctggccttag tgttttgttt ctagaaaatg 41880
acagtctctt tctagttagt tcaaagagag aagatcatga ataaaatgtt ctcaatttta 41940
aggtttttct cctgtaaaaa tttcttaaag tttgatatcc cattttgcc gcagaatgct 42000
agcaaaacaa aacagaaaaa caaatagcaa acaactaata gttggacatt ttggaaatgt 42060
atttttcgta agattgcttc gttactcttt aaatatggag ccttatatac cttgtcatat 42120
cttcagttag tgatattatt cctagttgac acggtagagt taagtatttc actattttag 42180
gatattttgc agagatcctt gtagcatgaa agtgctctat aacctgaata ggtgttagaa 42240
ccaccagccc acagaaagca gttagttgtg tctgggagta gcaaaatact agattaattt 42300
cttctgatgc ttatttgcca tctcctttaa ggtaaagcga gcgtggggga ttctgagtgc 42360
tgtgggtgtt tttcggtggg tggaggaatg tctgaaatag acgtcaactg tcaggatagt 42420
cttcagagtc attgttaggg acagtgttaa gtagatctca tctcatagtt tcatggtagt 42480
atttgaatgg ggatatcaaa agccaactcc agaaggtatt tgttgcttgc cggatagaat 42540
ggcatcttcc tacatgtgcc ttgtgtgacc cctgtggtgt tattagaagg tctcttgaag 42600
atggagttgt actttcttgt ttcgtctact tgggttgcca ttataaaata tgataggctg 42660
ggcagcttaa gcaacagaaa tttgtcttct cacagttcta aaggctgaga ggtccaggat 42720
caaggcatct tctgattctg ctgctgctgg gggttctctt cctggcttgc agatagccct 42780
cttctcactg tgtccccaca ttgcagagag agagggggag ctctctggtg tctcttataa 42840
gggtactaat cctatcagct cagggcccca accttatgac ttaatttaac tgtaattact 42900
ttcttactcc aaatggtcac attggggtta gggcttccac atatgaattg gcggggaggg 42960
ggtaactctg tccacagcag gtgttgctaa taggttctgc cgtttcagtc cagtgcccag 43020
agtgcccatc agttcactcc agaactgctc cagttcattc cttggggcag ggatttggta 43080
ccatgactgc tcttgatatt gctttgtaga tggaactttt agcctttgga tgggggtct 43140
agagaccccc catccaaatt tctcaggtct ggcaggatgt ggtgcagagt ctactacaat 43200
ggcagccctg tgaggctggg atttttgcct gttccattca ggaaagaatc ctcagcacat 43260
agaacagtgc ctggcatcta ataggtaccc agtacatata gccagatagc tgcagttcag 43320
catttgtgtt cacatgcgtc cattttccat tcatttgggg gtttttttagt cacaggctaa 43380
atgagattat aaattattgc atgttttctt ttcactttcc tccccaactc acctctattc 43440
aagtcgaact atctctggtc actgtgaaat ttgtttgcaa tagaagaaat tgcgtggtac 43500
agccaacata ggactgctcc cagtgagata cacacattga aaaacagagc cagagagagc 43560
taaaaactgg aatcgaaatg aaatcagtaa aatagctttc atgaaactca tgaaattcat 43620
atgaactagg aagagatatt ggcatgaatg aattttgact ttaaagatga aaaccatgtg 43680
tctccaccca agttgtgggt taaatcttgc caatgaatgc tgaaggaggc acgtgaccac 43740
ggccttccca agtgtacaag gaagaagcca tcagggagtg tgtcgcatgt tcctctgaag 43800
tgtcctcagt tgtcagcctg ggtcttcgcg gtggagtgaa cattacactc atcactctgc 43860
aagaaaggag ttttcaggaa aagcccacga gcgccaaatt atacctctga cttttatcct 43920
agatttgtaa ttaaaaacat gtttaaagac ctaattattt gcgtatttcc cttcagagtt 43980
aaccccttta aaggatcttt aataccttgc tctactgttc tgactaaatg tttccacatt 44040
tttttccagt taggctcact gtttcacttc tggaaaatat tgtgtaatta tttcccgatg 44100

09650086 - 070704

09504080 - 042704

```
gagtgaaaac cccacgaagt ccccagtgcc ttggtgactt caactttatt ctcccagatc  44160
gagttgcatt taattttgtc attctattta attaattaat attaaaaaga tagttaccaa  44220
cgtatgattt ctggtctggc cagctgaaaa gtcttcactt tcaaattaat catatattcc  44280
tctgataagt tgcacaattg tcattgcttc ccatctttct cagttttggt tttgaaacag  44340
gatctggatt aagatgatgt taaagtaaaa tttgtcctat atggtgaaat taatttttct  44400
ttctaactca tgtctcattt gtagccagaa actcattttc ttttttttaa ggtacctatt  44460
ttatttctaa tactgcatca cctataacgg tgcacaccag gctggtgagc agtagggtgg  44520
ctcctgcctt ttaaaaaatg ctcatgagca acccacatga cctacgaagc tgctctaatg  44580
tactgctttc tggaattaag acaatttaaa ttgtactttt aaaatatagt tttagaaagt  44640
aacatttatg ggatttttta aatacagaaa agtataaaaa ataaaagtac cctatgcatc  44700
caccagccag ataagttgtt cctcttttca atttttttgta gagatgaggt ctcgccatgt  44760
tgcccaggct ggtccgaact cctggcctca agtcatcctc ccacctcagc ctcccaaaga  44820
gctatgaggc caaagtggga ggatcgcttg aggccgggag ttcaagacca gcctgagcaa  44880
catggcaaaa ccccatccat acaaaagtta gccgggcatg gtggcacaca cctctatccc  44940
cagctacttg ggaagctgag gtgggaggat ggtttgagcc tgggaggtca aggctgcagt  45000
gagctgagat cacgccactg cactccagcc tgggtgacag agtgagaccc tgtctcaaaa  45060
agatactcat atgcatggtt agcaaatcca agagtataga agaaaataaa atcaagagta  45120
aaagtctctt ttcttatcta ctttgtaaac atgctgttta cgatttttgt atcttgtctc  45180
cttgagaaat ttcacagaga gagagcaatc aggaaaattt ttgagcgcac catataatat  45240
tgattctaat agcatatcat tataaataca aaccttatag taacatatgt agtctcaagg  45300
actatatatg tttcattcct tctgaggaat ggaatagaat ttattagctt ccatttccta  45360
aaccaggaaa taatgtacta gtaactgttg acacttacag aattggccat ttgttgatac  45420
acctctgaat taaaacttgg atttggcaga tggctcagct actctgataa agttaaaggt  45480
ttgctaaatc tttaaaagct aaatcaggag ttctaagaga agttttcaac tttcctactg  45540
gtaacatgtg tccagcatcc aaagttgcct gtgcactggc aaatttcttg ccttacccta  45600
atgccagtgt cattttctga gacagactaa cgcatacatt tattgaatcc tactatgtgc  45660
cagggtgagt aagaaatttc ctctgtcctc agtgcgttca cagtttagca ggggaagcag  45720
acactgtatt accaacaacc tataacatat attgctgtta aaatagaagt atgagcaacg  45780
tattatggaa ccacagatgg gaagtgatta atttatactg gaaagccagg gaaggcttca  45840
cagagaaggc gctggatgag tcgcctgacc ttgcaggagg cggaggaatg tgccaaggag  45900
agaaggcgcc tgggcagagc acagtgctgg gcagatacac gggacagaag agctcacggc  45960
aggtctgggg aatttggggt cagcttttg tagcagcagc acgtgtggaa agaaggagca  46020
gaggctggaa gggtgggttc ccaggcctgt tgctgaaggc tgaccttagt ggtcatgccg  46080
aggagcttgc ctctcctgta ggtgggagtg agattgtgag gaagaggatc ccactcaaaa  46140
ttcgtcatga aaaataaaac cttgacagca gcaggtagag agactgaagg caggaagcca  46200
gttaggaggc ccgtgggata gtccaggtag aaggtggaga ggcctgaaca cagtggccgt  46260
aacgatgact agaagaggac agattggaga ggcatttagg aggcagcatc agtggaaccc  46320
tcaactgcta aattggaatc tgagtgagga ggagggttga gagtggcttc gggctccttg  46380
cctgtctggt tgatgaggct gggggtgctg aagagcaagg gttggagaag gagcatctcc  46440
ccagtggacg agctgaggtc ccctgaagag ggcctggcac tcagagcgac actgggccca  46500
gacatggagt cagggccata ggtggacctg gggtgggtaa cgcctagggg tagaggagcc  46560
tgttccagga gctctgagtc aggcttctga ttttgaaatg actccagagg gagtagaatc  46620
aggtatataa atgagttaat atcgaaaaaa aaaaaaaaga gcaggaggaa aattaagtag  46680
agtggctgaa acagttactt ggcagatttc tccctgagag aagctggtca tgagtctgtt  46740
ttccatgtgg ccttctagag agacatctct ctccaatctg ctgatgagag gatgtgtggg  46800
gaaaggaggg gtcatccccc acaggtttgg ggtaactggg cacctgttct caacagaaga  46860
gctaccatta actgcggatc tcttctgtgt ggggcacgta gattagctca caccatcaca  46920
gtggccctgc agagtagacc catggggttc tacacatcag gatggggaag ctctgggcaa  46980
agtgagaggc ggagacgact ggcatcaggg tggctggctc ccctggcgag gctgcagtgt  47040
ggcttgggag gacgttgtga cctgccccag aggaggcctg aggctgctgt tgatgctacc  47100
atggctgctg ttgttgagaa tgccccgtgg ttcatggttt atggatgaca ttagtgatgg  47160
tgcattctac taaggcggca ctggctcctg gcagattcac ccactcttag cacctgtcat  47220
cttggaaaag ggtgtaagct ggtgctgcag ccttcccttc tctcagaaga aactttctga  47280
cactgagccc caagcccaga gtatcctctt tctctcctta aaggggagtt aaaacttttt  47340
tctttcttct tcttcttttt ttttttaata gagatggggt ctcactatgt ggcccaggat  47400
ggtctcaaac tcctgggctc cagcgatcct cccacctcag cttcccaaag tgctgggatt  47460
ataggtggga gccaccatgc tctgccctaa gagttgaaac ttttaaccga ggtttaagaa  47520
tagtataaaa atcctatttt ttaaatagaa tcaattatag tatctacagc aacctaaaat  47580
gtgtcaactg aatactgagg tgacttctct aggtctcaga ttggaaggat aaagcttatc  47640
tgatgctgtg tgtttctggc tgcatttttt tgctcccctt tcctctcagt taatagcaga  47700
tcagagaaca gaaggagttt gctcagggcc acctgagacc acggtggcct tcttcccttg  47760
```

aggtttttcc aacagtcact cattcgtgga ccaaaagcag gccttgcggg aagcttgatt 47820
ctaagggcag tgaagacagg agagcctggg gttgagacta caaagcagtg tgagcactca 47880
aggaacctca agtgaggcaa aggaaagcct gggagaacta ggccagggaa ggggaattac 47940
ctgtggcttt agggaaaggg aacggaagaa ggtgcagctt ggcagagggg agggcgggga 48000
gcgtgccgcg tttgccaggc ttctcttacc accctgagtt ttgctgcttc tctcacagag 48060
tgacaagttt gatatgaggc tccattagat aaggggtctg gtctggagct gtttaattat 48120
tctttgatgt gtttggcaga ttttgtaaaa aaaagaaaaa gaaaaaatta aaattaataa 48180
taataacgat gatgatgcaa cccaaagccc tggccattgt gggatgcagg aaagcctcag 48240
gaggatgatg gggacagagc tgtggccacc tggtccctgg ggtcactgcc cagttccagc 48300
tgtggcctca ctctctccct tctccttctt cagccagacc cttggctctg atctgctttt 48360
gatttgaaag gactttagaa catttcatgc acaatttcca gaaatatgtt attatcagta 48420
gcagcttcgg ggcatgcaca gggtcctgga cttacaggac agagatccgt gtggagtgac 48480
agcactgcct tcctccactt acctttctgt atgaccatga attccttgac ctccgtgctc 48540
actttgtgaa gaaaactggc agggattacc ctctccatca gagagatgaa agagtctgag 48600
ctaccaagaa agcaacggac tcggccagag tcagccagcg ggccgggctt tcctgccagc 48660
tcggcctgtg tttccttcgc tgtgctctct acttttccgg agggcgtccc agctcagagt 48720
caccctcct ccagaagtgg ttctggcctg atggaggact tgaaccatct ggggcatctt 48780
ggaaaagagt ctgtttgaaa gcctatagaa gtgttccagg atggaaagca cactagtcat 48840
gtcggccact ctggcctggg tgtgagagca tctgcccgga tgggaagccc ttggctgaca 48900
tgtaaatgtc agctatgtca agtgcccagg gtggtggcgc tgggggctgg gggctggggg 48960
ctgggcaatg aggtggaagt gcctgtgctg tgctcaccta gaggaaggaa cctcacatct 49020
cagttggatt tttcatgcac attcctgctg tcatcccaat catggtggcc aactttggag 49080
tctccttgga gagcctgtga cggcctcagt ggctgtgcac caggcccacc gatgctcagg 49140
ggtgtaggct gcttccgggt ctcatctcag atccccgcca gttctggctg gcgctgtgtc 49200
acctcttctc tgtgtcagga tcatttttat ccctctctgt ctgtctttct gtctttccct 49260
gtgccctcct ttcttccccg gaccagctat ttcagattcc attcaactct gttcagtgat 49320
gctgccgctc tcaatgcggt tagagcgcaa gatgtgagaa cgtctgtgct gagtggccta 49380
aacactgaag gctgcgggtc tttctaattt cagcattgag actttacaag tccacattct 49440
tggcattgcc aaccagttag aatagaacaa taaatcccag tttttgtcat gggcgtctgt 49500
aattaaaatg gcaactggaa caaggcagtc acttactgag cgctgatggg gtggccaact 49560
ctgtggggtg ctcaggaaga cacggggctg tgagatatgg actccactta gagggctcac 49620
ctcgtagtca gcaaagagac ttatccagga catgtggaaa gaatgagttt gtgcttggcc 49680
atgctttggg ggccatcaca attaaatgct caaaagtgga ggaggggctg gagtatgtgg 49740
gggatgcttc acagagaagt tagaacctgt gatccttgcg gggaggggga tgggatctag 49800
agaagttggg agagcaggtg tgcgtcctgc acggacccca agtgagcgag ggcccggcag 49860
cctgctcccc tcgacaggca ggccacctcc tgcccccagg cttctgcccc cttcagagga 49920
cctgggaaca acgccgttct ggacccaggt ttcagaacac ttccaggtgg agcctggctc 49980
tgagcaattc agtttgccag caggagctcg actgccactc cgtcgtcagc ctttagtatt 50040
cctgccactg tccatccttg tctgctgtcc ctggacactg cagccccatt gtgaagggct 50100
gtcacaagat gcaggggagg cagccaggcc cgggagaact gtcacactgt tcccaaggtt 50160
cactgctctt cattcagtgg ccagagaggt ttgatgtgca taaatttcca ctttgaatgt 50220
gtgagctcca tgatagagga attcagtttt gttggagtgg ccctaaagct cctgaagtaa 50280
caactagaag tttccaaaag gaagatgaca gttttaccta agaaagcgtt ttctgactct 50340
ttgagttttc tgaacatgaa gtggatgggg gggtgccctg tccctggagg tgctgagctt 50400
agagagggag gaagcggatg gggaggtgca ggtgttttaa cgccaggctg tctcttcatg 50460
gcgtgccatt tggtgaacct gtttaattct gcttttcccc cctcagcttt cagcgccccc 50520
agctgcgtct tctcgccccc tcatgtttcc ctctcctctg ccaggcagtg aactttctca 50580
gctgctcctt cagtttcaca ttgaaaggca tcgtgttttc tgttttgtcc aatagagtat 50640
tgttacagtt ttctgtaagc tttaagctat ccaaaaatgc tcacagaaaa acaacaaaca 50700
cccacaagat agaatttcag gatttagaag tatttcccgg caaggggccc gggattcgca 50760
ctcaggccct ggggccacag agcccgcagt gggcctcccc ctgatgctgg gcgaagcccc 50820
aggtgtcact cctgtgttcc cgtctcgctt tgcagcttca tcgctgtgga gaacattgac 50880
agctactgcg tgctcatctc ctccaaagct gtttacttcc tgaaaagtgg agactacgtg 50940
gatcgagaag ccattttcct agaagtcaaa tacgatgacc tctaccactg ccttgtctcc 51000
aaagaccatg ggaaggtgta tgtgcaggtg accaagaaag ccgtgagcac gagcagtgga 51060
gtgtccatcc ccggcccctc ccaccagaag cccatggtga gtgcctggct gttctcaggc 51120
tcctgagggg cggggccagg gcctcgatgc ctctgccctg cttccccgtc ctcagcagga 51180
actcatttag gaggttgagg ctgggcccct cccaggagtg ctgcctctca gtcctgaaca 51240
tgggaggggc ccagggtatg ttcacggggc gatgctgccc tcccagctgg cccatgggtg 51300
accctgggaa cattaactgc ctcacaacgt ttgtgcctca gttacccgta gatgtagtga 51360
gggtaacaat acttactctc gttggtgata aggaacagct aacacaacac acagggtttt 51420

09509082 - 090204

tctgctccca aaatgggatt cttcagtgca ccaaatcgaa gaaagcactg gagctcacgc 51480
tggtttctcc attgtttctc cttaacagtg gaaaccgtaa cttttgttct agtagcatct 51540
agcatgctca ataattattt gtaaataaaa gttatacttt ccctccaaag gggacaaggt 51600
attgttatga caaggctttt aaataataaa gctcctgcga atagctaacg ttcctagagg 51660
gctggctgtc ttgtgggttg tctgatcact gtgttgctgt catcccctcc tcactattgg 51720
tcatagcagg tgattcattc aaggctacac agctgacctt gaggagccgg ggttcaaatc 51780
cgagtggctt ggcaccagag ctggctgcag agcctcttgc ggatctgtct ctggccagtc 51840
ggccctggag gcttgccatg acacccaggt gttagtcctg ctcattctca cccggcatac 51900
ccggattttg aagcttgcat tcaagaatga tacattaatc aaaagggcct gcccacctct 51960
gctctctcta tggatcggaa atagcgccag ccttattggg cctctctcct ccggagtcct 52020
ttggcctccc cctgctcatg aatgcatttg ggcctgtttg gacttgtgta aggctcccgt 52080
ggggtcattg gcttaagtta gagctggctg atgaagaggg cgagcacctc aaagtgtgag 52140
tatttctcca gatcccttca ctgtagcagg tgggcagcct cgcccactat acttctgccc 52200
ctttcaaagc aggtgggcag agaggtgttt gtggtaagaa agacctagag gcttttgttc 52260
gctgattctt cttccttcat cagccatcac cagaccttag atgtgaatcc cccattcttg 52320
ctcttggtct tacctctgca gatcagttat ggccgtgggg gggagttccc aaatgtcagg 52380
tgagtatggg ttggctgtac agtcctgggg aatgtttaaa aagaccggct gggcgcagtg 52440
gctcatgcct gtaatcccag cactttggga ggccgaggcg ggcggatcac gaggtcagga 52500
gttcgagacc atcctggcta acacggtgaa accccatctc tacttaaaaa aaaaaaaaaa 52560
aaaaaaaatc gttagctgtg cacatgcctg tagtcccagc tactcgggag gctgaggcag 52620
gagaatcgct tgaacccggg aggcggaggt tgcagtgaac caagattgcg cctaggcgac 52680
agagactccg tctcaaaaaa aaaaaaaaaa ttgcagggac ccaccccaga cttgtgagtg 52740
cgagtgaagc aggagcagcc ctggccatca ctgtttcttt gacgtgtaca tcccatcctg 52800
agatgcagct gggctgggag ccgccacctg ggtggatctg attcctggat ttccccatcc 52860
tggggacagg tgacccatcc tgttctcctc cttaggtcca tgtgaaatct gaggtccttg 52920
ctgtcaagtt gtcacaagaa ataaactacg caaagagcct ctactatgaa cagcagctta 52980
tgttaagact cagcgaaaac cgagagcagc tggagctgga ctcctgaagc cccgctgctg 53040
agatgggcgc tcccgacaca gcgcagaccc accaggagga aagaggccca gctctcagct 53100
gacgatggag gcagaaccgg agtcgggttt ggggaagttg tcaaggaatg agggaaagta 53160
aatcctcatg aggaaaagta caaatggaaa tcgtattaat ttgtgaggca gggagttatt 53220
ttagattatg ggaaataatt tttaaaggta ttggttaaat aacgtttaaa aacatgtact 53280
gagatgaatc taatttttag attgccctgt attttgttaa catgtatata tgtacaacag 53340
tgtgtttgta aatatatagg aacgtttctg aacagggtct gtgctatgtg taaaggtttg 53400
ttaactgtaa agtaatataa agttatattg gatcttctat tgcactaatt ctagatgtct 53460
aattcaggat actgtctata gaaaggcatt cttaaaagtt aaagaatgtt acgtcttagt 53520
tttggagact aaagtattcc cagtaaagtg ggttgaggtg agggctgtgg tcctgaaagg 53580
gacgcctttg acatcgtggc tgtccagttg ggctgtgagc tgtggcaccc aggactggcg 53640
ctggcccttc agaaggatct aggagagggg cttgggagcc cacttttaat ttctcacccc 53700
cattttacaa agagtgctta gattcttaca aattatgatg taagttatcc atttggcttt 53760
ttcctaacta gtcttaccaa acttaggggg aaacctgtgc tccattacca catgggtgca 53820
agtcagcatt gtaagttttc tcaggttatt attattagag aggttggaaa cattggtaaa 53880
ctctgttgat tgagaaggaa aaaaaaagtc ccattgaact gttgcaacaa atcagaaatc 53940
cacataaaag tgctctcctg cctgggcagc aacaaccaag aacaaagccc cgggactgtt 54000
ttctttttaa taaagccaca ggcaggcatc gtagctccac agcccgaggg gacacaggat 54060
ggaaacccca ggatgagaag ggagcaggga gagttccaga aaggggatg aaataggagt 54120
attaaaaagc tgcgttggta agtttttcat ggaaccaaga tttgacaaag gcatctctta 54180
tccttggttt taaattcctg ctgggagcaa ggcctggtat gagcgccctg ggtcttgttt 54240
ttggtgtttc gcttttctgt aaggattaag cagataggga gaagggaaaa ggggcctcac 54300
tttagaatga atgagtcacc ttgtgatttt taaattttta ttttaataaa gctaatcaat 54360
ttctacaacc ttgtcacatg tagctgagtc tgggatgact cagtggatca gtggatgcgt 54420
ggaaggtttt ggtgtttata actcatgacc caaatccttc caagacacaa atgaagctaa 54480
tcttcttccc ctccctttcc tctcccactt cccctctgtg tctgtgtctg tgtgtgtgtg 54540
tgtgtgtgtg tgtgtgcgcg cgcgcgcgtg catgcagaga ggaaggaagg gagctttagc 54600
acaagtagct acatagtgtt caaggatcag ctttcttgaa ctccgaggct tggttgcctt 54660
tgctgaactc caagttagtg gattgcagaa tggaaacttg gcttttgcgg cactgggtga 54720
gttttagttt gtgtgtgtct tgctgggggg tggtgatgat tgtctcagca ctcacgcact 54780
gcacaagatg gcagcaggat acagcactgc acaagatggc agctcctctg cagcttcctc 54840
ctcagcctcc ctccttgcac ccccacaggt ttggcttgtg gtttttgtca tcagtaacct 54900
actgcctgag atcatgatct cttaaaagat gagactctcg gaagggttga ttgtatgcgt 54960
cagtgagcct tctatcacct tctggaacaa agtcacttga aatctcttga tgagattaag 55020
gagtttagtg ttactaagaa aatctgcttt gggccgcagc agtgctgggt gttctcagac 55080

09/760,082 - 01/12/01

09508820-050701

ctgactgagg aagttagctg cgggctgccc tgtgggctgg tgcttcagga ggaatccaga 55140
gaagtgttca gatgcccccc ttgggctcct ttctaatttt aatcagctct ttaaatagct 55200
gcccatctcc tgtgattgca caaccaagca ctttgacatt tgcaccttag gagaggcaga 55260
tgttaaaatg gaatccaaag accacctagg gcggggctgg gtgggagatg ggagggccaa 55320
ctgcgagctg ctccacttct cagctctccc ctgccctgca gccctgggcc agacaaggcc 55380
agaaggtttc aggggcattt gacatcccct cctggttctc accaggaaaa catccaaagc 55440
tttggaggaa acaggccctg cccctggctc cttaaatgcc ccgtctcttt gtaaactgat 55500
attcagccag caatgcctaa gactttgtta agatcatttc tactgctttt ctttctgctt 55560
caaacacaca gttcgtctct gaggaaagta aaataaatgg aataagagta aattgggtaa 55620
ggagatatcc aaagctaccc agtcccttga cccagcacag ttggccgacc cgtgtcactc 55680
cctggctgtc gctgcttctc tgtgctcact gaagggtgag ccaggccagt gcttccccag 55740
cccctgggcc tggtcactac acagtggaaa acagacaagc ggccccttcc ccaaatccca 55800
agagtgtctt gctgcttggt gggtgctcat cgcaatgttc tgaaggctcc agggccactt 55860
tgtttgtaag tatgatctgg gcctcaaaat accatagtag ctgcttgata aaattctaaa 55920
aatatctggt tctctattat gtaaacacta ttacagtcac cagtgtgtga agactcttga 55980
gtctggttct catatcagag tcatcatttt tcttcctgtg gaataaaatg ccttgtggac 56040
ttcccaaact tgttcttttg ttttcttctg gtctcttggt gatccacagc ttctagagct 56100
atcaccagtg acaaatacca aacatagtgt gatgttcaca ataaaatgtg gcctctgccc 56160
ccaggcctgg ggaagcaccc ccacacctta accagtctca gcctcccaag agtaagtagt 56220
agtctccgcg ctacactggc tgctgatcag tccattctga ggttcctggt ccaagcccca 56280
gcaggacaga cgtcacactt agggtttagg cagctgaaga agaaacagca aaggaggccg 56340
ggcatggtga ctcatgcctg taatcccagc actttgggag gctgaggcag gcggatcaca 56400
aggtcaggag attgagacca tcctggctaa catgatgaaa cctcatctct aaccccgact 56460
atatcgcccc tctctattcc atccactcca cctcaaaatt aataaccttg tgtgtcgccc 56520
aaattttcac cacgttatat aattatgtgt ataactaaaa ctacaaaaaa ttagctgggc 56580
atggtggtgg gcgcctgtag tcccagctac ttgggaggct gaggcaggag aatcacttga 56640
acccgggagg cggaggttgc agtgagccga gatcacaccg ctgcactcca gcctggcaca 56700
acagcctggc aactctgtct caacaacaac aacaacaaca acaaaacagc aaaggaggct 56760
cagcaggatc atccagagat ggagtgacac caggagggta tggatcctag aagctgaggc 56820
cagaaaggtt tcaaagacta ccgagggctg ctactaagtc aggtgggatt cggaccaaca 56880
attatcagtg gacctagcaa tgctgaagtc actagagacc tttctaagag ctgtttcaat 56940
ggagcattgg aggtgaaagc cgggttggag tagattcaag aggaaaatgg aaggagagaa 57000
ataacaacag ctctctacag gaatctggcc ataaatggag agaactgacc ggaaattcaa 57060
gagggcaggg aaggaataag ggagaagagg gcctggcggg ccaggaagat gggtggaggt 57120
gggggagctt gagattccat tgattgctcc tgatttctca catcaggcaa gaatgaatac 57180
agggcgggaa gtgatgctga tttggagaga gagaaggtgc acgtagtcat gtagggtaac 57240
gggaaaggga ataggccaca gaagcatggt atgtttgccg ggcgacatta aggacccatt 57300
tgacgttgat gaccgtgaat gtacagtgga atcgggcagc ctggctgtat tcttgtccgg 57360
ccacatgtag ctgcacagct tcagtgttgt agaacaggca aagaactggc tttaatcaag 57420
aaatgttccc ctcacctatt caagtacctc atccaccatt gcccagttga actggccaag 57480
agccaatcag aacaaaatgt caacagaaat ccaaaagcct agagaaggga ggggctacgc 57540
tttccaaacc aaagcacagc ttctgaagac tatgcccctt ccaagtggga gagacagtgg 57600
aaggtgtggt taacaacccc cacacgcgca cacaattaga ctcttttcag gggttcacag 57660
atgcagtggg acagtcagtg tttgacagtg aaccagccag gcactccagg gcatggggat 57720
gtcattgaca tagaaagggt atgtgtatga cgatcttcca tttcctcagc cgaattcagc 57780
aagccgtctt gcaggtattg gttggctgca aacacagctt tcaccccagc tctttagacc 57840
aagaatgtga tttctagcac cgtaagagat acttgatgtt tgctgttcac tggacactgc 57900
atcccaagac cctaataaca gaaagtgctt cctgaaaaca cacccaagca tgttcattat 57960
tatttagaag tttggattaa cctggaagag cacttcttca ggaaattgga agtgagattg 58020
cactcgcatc tgcaagggtc ttgaagatca tccaagttgt ggctctctgg ctgagggcat 58080
gataaaagca atcataaaga ccaaagaaag ggactgtaaa cctagcgctt taggaagcca 58140
agccaggagg atcaagacca gcctgggcaa cagagggaga c 58181

<210> 2136
<211> 4802
<212> DNA
<213> Homo sapiens

<400> 2136
agtttgctgg aacattatca gatggcttac ggaagacgat ggacaatcgg catcagtcag 60

```
agcgggagta catcaggtac catgcagcca caagtggtga acaccttgta gccggcatcc   120
atggcctggc tcatggtaag tcatgggtga catcaggctc tgctgctgct ggtcctcaga   180
ggcgcctttg tatcaatctg attgcagcta taaaaaaaga aaggtgggct gggcgcggtg   240
gctcatgctt gtaatcccag cattttggga ggcctaggag agtggatcat gaggtcagga   300
gtttgagacc agcctggcca acacagtgaa accccgcctc tactaagaat acaaaaatta   360
ggccaggcac agtggctcaa tcctgtaatc ccagcatttt gggaggtcga ggcgggtgga   420
tcatttgagg tcaggagttt gagaccagtc tggccaacat ggtggaaccc catctctatc   480
aaaaatacga aaattagaca ggcgtggtgg tacatgcctg tagtcccagc tactcgggag   540
gctgaggcag gagaattgct cgaaccctgg aggcagaggt tgcaatgagc tgagatcgtg   600
ccactgcact ccagcctggc aacagagcaa gactccaatt caaaaaaaaa aaaaaaaaaa   660
aaaagaaaag gctgacaaca gaggaaatcc tgtgttggcg tacctgatag ccttccaagc   720
tctcttactt tatcctcctt gcagttgaaa tacgacagcc ggtgagaact cctcattcgc   780
tttctgaatg ttgtgcacat tgcaattcct tttcgttctc tggcttctgt tcccaaagta   840
tcataaggtg taatcaacca gacctgttct tagaattgta gctgctactt ctcttagaat   900
tgtaacctct gccttctcct tactgatcat tccttccaaa gaaatggaaa tgaggaattt   960
gtggccaggt ttgtagccca ggtgtttttt agttttacat aaatgtgcat tcactaaaat  1020
tataaattta tttgcctaag agatgttggt gatggcatga atgcatttgg tctctgactt  1080
tgaattcttt taatgcttta attctgagtc atttgccttt tgttgcattt ttcttaacaa  1140
tttcttagta cggcatccaa ggcccttgga actataaatc cagccaattt tccaaccacc  1200
atccttcagc catgctgcac tttggccaca cacagctatg tactgcttcc caggtgtgct  1260
tccaagtcct tgctcacaca tggtccttct gctctccctc ctctgcctca tttccttgtc  1320
tatcaaaatc ctactcagcc tgtaagtccc aactcaatac attttcccag ctctattgtc  1380
cctgttagag ttaatgacag agcacagtct gggttgtgta tgtcaccagc tgtgtacatc  1440
tgatagattg agaatgtgag gaggggagaa ggaccacttt gcattcacct ttctccttgt  1500
gtacctcaca tgacacctgg cacatagctc atgcatagta aggcttagta aattaaactc  1560
tttgtaccag atccttagga accatccaaa gctatcagag tcatatcaaa cctgatcagt  1620
tttaattatc tgcatttgaa aaagatgaag gaatatagac agtgcaatat tatatttcta  1680
tttgtgctta gggcacgttt agatagaagt ttttgttgat cagctttcct aatggtgaga  1740
tttggatcaa aatgcgtttg cttttcgtaa ggctgcccat ccgtaaaggg agctgtccct  1800
aaggagacgt caggccagaa gtgaaatttg gctgaaagtg atttgtttat ggattttaaa  1860
agttgactgt tgggcaatca tttggggtta aggtttaatc attctttctc gtaatggtaa  1920
tgacagtaca ttggtctctt agaagacttt taaaatgaat ataaaatgct ttgttatgtg  1980
tggtggcctt tatctggcca gcatccttgt gacgtggaga gagcatggct ctcctcactt  2040
tctggatgaa cacacaaatg tgctgagaaa atgcatgatt ggttcaaagt tgcaaaatca  2100
cctcccatca agaatcattc ctataatatg tacagcctct ccaggagcca atggcttcat  2160
ccaaagagga tccactgagc tctgggttat acgaaggcag tatcctagag tgagagtctt  2220
cccttaggat gaaaagacct ttagaaggtg ataagaacca gaatccactc aatccccttg  2280
atgtaagaaa tgggaattgt gctcagttct ctctgcaggc cttgctggac ccaggttcag  2340
tcatgttctg tctctcaggt cccagtctga attcctgttc tgtgtgtgct ctgccaaaaa  2400
ctttgttcaa aagtttggga aagggctggg tgcagtggct caggacagta agcccagcac  2460
tttggaagac ctagagggag aatcgcttga gcccaggagt ttaaggctgc agcaagcggt  2520
aatcatgcca ctgcactcct gcctgggtga tagacggaca ccctgtttct aaaaaaaaaa  2580
aaagtttggg aaagagatat tgcctcactg gagcaaattt acccagaatc caaaagaaat  2640
gttgtgaatt gttagtacat tctcacccaa ggagtttcct ttaccaattt gtctcactag  2700
agctgaagag tctagagagc ttcctcacac cccactgtca gagggtaaac atcctgtgag  2760
tgtccctggc acaggtcctg gagatgctcc ctagacgggc tgcctcttcc cttcagtgac  2820
tgtgacctct tcagcctctg ccagcttctg gcctcttcta aggtgttttc agccattgct  2880
gtcaacttgc aaaatgtttg gaatgccttt ttgacctgga ttggtctttt gaactgactc  2940
cattgagggt cccagccagc tttcacagct ttttggggtg ctcttcatga aggttttata  3000
taatcgccga taccgaattt catcaaagca tgcagtagct tttaccttat ttcaagcatc  3060
cagtggggtt ggccagtcac ccccatagtg ttctttgaaa attgcaaatg tataccatca  3120
gctctccata tccacagatt cagccaacca tggatggaaa atatttgggg ggaaaaaaga  3180
tttcacgaag tgccagaaag caaaatttga atttgccaca cgtttcaaat actgtattga  3240
ctccacacaa atgaagtgat atgtgggcat cgtattagct acaataaata atctagaggt  3300
gatttaacgt atacaggacg gtgtgtgtag gttatatgca aacacctaca gcacattatg  3360
taagggactt gagcatccta ggattttggt atctgcaggg gatcctggat caatcccaca  3420
tggatactaa ggaacaacta catttagtta tctctctctg ccttagatat ctttcttttc  3480
ttttcttttt ttttttttct ttgagacagt ctcgctcggt cgccagactg gagtgcaatg  3540
ctgcgatctc ggctcactgc aacctctgtc tcctgggttc aagcaattct cctgccttag  3600
cctcccgagt agctgggact acaggcacgc atcaccacgc ccagctaatt tttgtatttt  3660
tagtaaagat ggggtttcac catgttggcc aggatggtct cgatctcttg acctcgtgat  3720
```

09509894.030104

09750250 - 062704

ctgcccgccg cagcctccca aagtgctggg attatgggcg tgagccactg cgcccagcct 3780
ctgccttata tttcatagga tgccatcatc ttcaaacttt ccccgaaggc ccaattttct 3840
agtctcctgt tgatttaatc ctctatctgt atcctctcct gatcgtccgt aggctgccca 3900
agctctggga tcgaaaaatt ggccactgtt aacctctcag cttttctctg attttttttt 3960
ttttttttt ttgaactgga gcacacttta cttctgacta acatgtaaca tatatcctct 4020
gactctggac ttaatgggca aatctgcagg atcctcttct gtgagttggc ctgtctgtgg 4080
cctctctggc acagagatta atagaatggc cttaagttat cattccataa tcaaggggtt 4140
tggctttaaa tgcttttgct tttgtcctcg tcaggttaca acagcccttg tctttttcac 4200
taggtatcat tggtggactg accagtgtta taacttcgac agtggaaggt gtgaaaacag 4260
aaggggtgt cagcggtttc atatctggcc ttggaaaagg gcttgttggc actgtaacca 4320
agccagtggc aggcgccctg gattttgcat cagaaacagc ccaggcggtg agagacacag 4380
ccacactcag cggccccagg tcagtggtgt gggaagaatg gcttttgcag tttccagcct 4440
aggtctgctg cttctcctaa tccatactga tgtgtttaat tgtgcacttt cttagttata 4500
gggtttttaa ttcaaatact tgtaactgaa atttctgatc tgcctaatat aaaaagatga 4560
aaatgaggta cagaaacctg gcatgaattt tttcagataa atatatatat agcatatttt 4620
atatatgcta tatattttat atatgtatgt atatatagca tattatatat aagtatgtat 4680
aactatatta tgttatttt ctccattaga gaggtcagaa ttaggattaa actgttagaa 4740
gcttcttctg ttcaccaagc caactggatc cccacatgcc tatgaagaaa actgtcagat 4800
tg 4802

<210> 2137
<211> 274
<212> DNA
<213> Homo sapiens

<400> 2137
ttttttttga gatggagtct cgctctgtca cccaggctgg agtgcagtgg cgcgatgtcg 60
gctcactgca agctcagcct cccgggttca ggccgttctc ctgcctcagc ctcctgagta 120
gctgggacta caggtacctg caaccacgcc cggccaattt tttgtatttt tagtagagac 180
ggggtttcac tacgttagcc aggatggtct caatctcctg acctcgtgat ccgcccgcct 240
cagcctccca aagtgctggg attacaggcg tgag 274

<210> 2138
<211> 425
<212> DNA
<213> Homo sapiens

<400> 2138
tccccactgt tgttgttcac catgtgggtc tgttccttct taattttcct tccgcttgaa 60
agtatcagcc ccaaccccat aaagaaaagt gccacccccc atccccccag caggtcagca 120
gttctgctgt gggattgctg tctggccttg ataccagctg agactggaaa tcagggacag 180
cccatatggt tccaaacccc acagaaccca actgctttaa cgtagctgtt tgcttgaatg 240
gcctatttta gcctcccttt tccagagtga ctaattgggg attcttatca acaaagggta 300
taatgaatgt taagggccca gccaagctag actcgactta agcccagaag gattttgctg 360
ctgcttggat aatagatttt ccctgagtga attagtacgc ccttttagaa tgcctagggc 420
ctggc 425

<210> 2139
<211> 16037
<212> DNA
<213> Homo sapiens

<400> 2139
cgcggcgagc gcagcagcag ggccgggtcc tgcgcctcgg gggtcggcgt ccaggctcgg 60
agcgcggcac ggagacggcg gcagcgctgg actaggtggc aggtgagggc gtccccgcgc 120
acggctgggg taggggacgg gagtggcgag cttcaggtcc accggctgcc accgagtgat 180
gggaccggag gacaggagag gtcgctcagc caagagcccc ggggaggcgg tgccttctcg 240
gtggggtcag caacggtctc tgggggggtgc ctgggagcgg cagccggtct ccgccttggc 300

pct2004050960

```
ggcccacagc caccgcggac gcctccctcc cggatgtctc ctcgctgccc ttccctggcc    360
gaagccctcc cctgcagcct cctccccacc tgccggccct gtgttctcac tgctcttctc    420
tgctctggga tccgcaggat gacgtctgtc ctgcttcttc actgtccttt acagtcacca    480
gtctcggccg ggcgcagtgg ctcacgcctg taatcccagc actttgggag gccaaggcgg    540
tcggatcctt ggagatcagg agttcgagac cagtctggca aacgtggtga aaaccggtct    600
ctactaaaaa tacagaaatt agccgggcat ggtggcccac gcctgtaata atgtcagcta    660
tgtgctgagg caggaaaatc acttcaactc gggaggcaga ggttgcagtg agctgggatt    720
gcgccactgc actccagcct ggcagacaga gtgagacttc gtctcaaaac aaaaaaaaga    780
aaaacacaaa aaaaccacca ccaacaacaa caaaaaaata aagccaccag tctcggagtt    840
tcaaatctga gcactcttat ccatcttaat tctttcaata attcagctaa acgaatgggg    900
tcctgagaat ctgcagagcc aggctcagcg ctcgcctgca gagcctgcgg tctgtgggga    960
ccaccagcaa gatgaggaat caccttcggg aggaagggtc gtgctgggga gggtcgcgcc   1020
ggcggggtca agagaacctc ctccagggtg ggaatcagag cctccgggcc gcggtgtttg   1080
agggtgagtg gaattaatgc cgtgatggac atggggcctt ctaaggggga ccaacagtgt   1140
ttgtgaagag ttgactttgg gaggggttca ggatggccag aggtggaggc tgtgacctca   1200
gtgagtctgg atcaagggag ggggcaggtg ggtaagacac cgttttaaca aggtggcttt   1260
gagcggccac ctttgagggg cctaagggcc cctgggagat ttaggaggaa ggacaagagg   1320
attaagacac cgctttctga ggtgccgtgt ggctgtggcg tgggggtggc tgggggagtg   1380
ggttgtgttc attgtccaag gctctccagc gctttgcgtg gcgttttggg gagcacagat   1440
gaggtgtccc gacagtgggg agtggctcta gggagaccag aggctcggga gggggcctgg   1500
gcattagacc aggcacagaa tccgaagtgg gaagaaatgt gggcgtagag ggcaggcctt   1560
ggggatgggt gtgggggagg agggggagat ggaaaggagt cagggaggtc tcccaggctc   1620
acctggagga gtcagggtct catttccaag tgcactggga actgcagcct gggggtgggg   1680
gttcatttgg tttcaggcct gtggccaaga gacccacccc ctcacattca cactttggtc   1740
tccagtggct tcacaggcac cacctccttg ttctcgcctg ttttactcct caccttgggc   1800
tgtttcttgc ctttccattc tggcgttctg cagggatcag atccttcctc tcacgcacaa   1860
tctacactca tggcttttgc tgggagtaat gagtaaagct cccaaataga tgtttctgag   1920
ttaggaagca cattaaaaac aaaacaaaac gaagcaaaac cacacaattg tccaagtccc   1980
actctgtgtt caagggtcac atgatgtgca gaagctggtg atgggcagga gctctgaatg   2040
gagttactgg gatgtcaggc cgcgtgggcc tggggcaggc tggctgactg ggagcagcct   2100
ggctccaccc cggctgtcca ggacgcactc acttgcctct atggatgaca gctccttgcc   2160
tcacagctgt ctgtctctgg gtcagattca gcatctcagt gtcttttgtg tatcagctga   2220
atgtcaggga ggccacaggc tggtgcccag ttgaaaatct cacaaggact ctttgtaaat   2280
gcatgcaaga ataagaacag cattttcctc ctcctccctg accccattct cctcctcaga   2340
tgggacgatc tggtccttac ggaaagaatt ggagttcact gcttccagct ctgtgtgtgt   2400
gtgtgtgtgt gtgtgtgaga gagcgagctc tgcaggcgag ccagttctgt tgctattgct   2460
ggtttgagct gctgccatca ccacacttag ctaattacct taacatttgc acttaatttt   2520
tggccggaga ctaacagaaa ataaattttt ctccaattta aaatacttac gaactttaag   2580
aagaaaacaa aaagtacgat tccaaaattg ccctgtagta agtaggtcag taacattcag   2640
ggagtgtgga aactgcattt ctctttattc ttcccttcca ggccctgcat catggaaact   2700
ctttctaatg caagtggtac ttttgccata cgccttttaa agatactgtg tcaagataac   2760
ccttcgcaca acgtgttctg ttctcctgtg agcatctcct ctgccctggc catggttctc   2820
ctaggggcaa agggaaacac cgcaacccag atggcccagg taagcttgcc cgtccgccag   2880
gagcagggac tggcctgggc tgcgtgttct gtcaccagct tcacactcac actccagagc   2940
cactgagaaa ggagggcagg actggggccc gagtgtgcac tggccgtttc agggaggcgg   3000
ggtccactgg ggaagaagtg gggcagggca gggaggcagg aactctgctc caccgagatt   3060
tatttggggg aaactttcct cggttaatcc cttggaaaag accatccaag ctgtcttgtc   3120
ctagcgcaga atctttcttt agaaaatgac actgaaatta tttgaaacat aagttgcaaa   3180
gaactacctc ttttttggag caagagactt tgtaactaaa ctttcattgg taaggaaggt   3240
taatacctgt ttcaagttgt ttctgtacca acagctcagg gagggcatca acagaaattt   3300
gcaagaagga ttccagggca agtgcttcat tacagctgca cactgtgcag gtactgctca   3360
gctcagtctc accaacattc agagaacctg tggaaatgat tcaagatcag tgcttgtccc   3420
cagacctttg tggaaaggag aggagacata cacgtgagat gaaaccgaaa agcgccatcc   3480
ctgagtgcag gccgctggac acgccttcat catgggagtt gtcctttgtt caatatgact   3540
gtctttttct ttgatgacgc ttttcaatag tgaattactc attttaataa tttcccagct   3600
cattgtgtga agaagggagg gtttatgtgt aaaggctacc agccttaata ataagcacag   3660
agaggctctc taaaagatat atatatttgg aaatagggca ttgcaatgaa aatacgcatg   3720
ccatggcaag ctatgtgcac attcagggag gtgaaataac actaagattt ttaaaggaaa   3780
aagtaaagag gattacataa ttcctttgaa ataattattt ttggcaaaaa gatcaataac   3840
gaaggtgatg tcagtgtgag gttggatggg gagttcctgg gtagatgtcc ttgcacaagt   3900
attttgttgt gtaaggctgt gatggccttt gtgcaagagc gtaggttttt agagtccttt   3960
```

EP 1 576 005 B1

```
gtgatagttg tgttatcagg cattcaagcg tgagaaccct ctcttcatgg ccttccctgt   4020
ctgtttgtca aaggtttttg gttttgtttt tttaatatta gtgactccat tttgattctg   4080
aagttcctta tgctgaaatc tgtatgatct ttttctatgt tttaggctca ctgataaacc   4140
cttatagaaa gctttttga gagcaccaaa attgtctggg taccttctta ggtgtgagac   4200
tgagctctct ccatggctcc agtgttcaac tggatgcttg tgagacacca aacatactga   4260
gtacacgttg ctacctgtaa catgcaggga agcgttaatg gcagcagaaa tattttaaag   4320
aattatttat ttttccttca ttatataact ggtaaaagtc cactataaaa atttttaaaa   4380
aataaaagta gaagggagga aaaaatccct atgaatccat caaacagaga caaccaccct   4440
tgataatgta aagcatcttc ctccagtcct atttcttttt ttttttttcg agacagagtc   4500
ttgctctgtc gcccaggctg gagtgcagtg gtgcgatctc agcttactgc aagctccacc   4560
ccccgagttc acaccattct tccacctcag cctcccgagt agctgggact acaggtgccc   4620
gccccccacgc ccagctaatt tttatttttа gtagagacag ggtttcactg tgttagtcag   4680
gatggtctcg atcacctgac ctcgtgatcc acccgccttg gcctcccaaa gtgctgggat   4740
tacaggcgtg agccactgcg cccggcccta tttcctgatt ttcacttgac attttgtact   4800
ttggtgatta tatggtatct ttacttttat aaatgatttt tcagctaatg tgaggattcg   4860
gtgagacagt ccatgtaaag caagtgctca acatgtgttg gctatgaata gtaatagtgg   4920
tgtcacagcc tcaggtgaaa ttggtcttag cttttggttc tgttctattt gacagggttt   4980
ctcatcaaca gtctatgagc tgtctaaagt aaatttagta gcttcctctt ttttctatgt   5040
tatagaacag tgtgtattgc atgagaaata gaaattgctt gaatattaga aaaaaaaatc   5100
cctcaaaaga tcatctaagc ctttttagaa gtaattctct ctctccctct tatttttttt   5160
ttgttcattc attgtgactg atagattctg ttttttgttt gttttgtttg ttttgttttg   5220
ttttttgaga tagagtctct gctctgtcac ccaggctgga gtgcagtggt gctatctcag   5280
ctcactacga cctccaactc ccgagttcaa gttcacgtga ttctcctgcc tcagcctccc   5340
gagtagctgg gattacaggc acatgtcacc atgcctggct agtattcata tttttgactg   5400
gcatttggta acttataatc tgtactttac tgaaaataat tatatagagt ttttgtttta   5460
acattccctt tgtttatatt gctgtaacct ctttttcaca tataacttta ctttggggtg   5520
ctttttctta catgtggtgg gtggctgtct gttttgtatg tatgtgtgtt ttcttttaaa   5580
gaaccagctc ttggattcat tgatcatttt gtgtttgtcc caaaattcct tgggagtttt   5640
tctgtatctt ttctaacata atgattttaa agttttagca ttttattact ttcttggtaa   5700
tattgaaaac aatgctatgt tttaacttat ctttggccaa actctttggt ctaatatata   5760
tcacccatat tttgattatt ttctaaatca tatgtcatat acttatttag aagaatttgt   5820
ttgtttgttt gttttttgag aaggagtctt gctctgttgc ccaggctgga gtgcagtggt   5880
atgaccttgg ctcactgcaa cttccgcctc ctgggttcaa gtgattctcc tgcctcagcc   5940
tcccaagtag ctgggattac cagcaagcat caccacaccc ggctaatttt cgtatttta   6000
gtagagacag gatttcgcca tcttggccag gctggtcttg aactcctgac ctcaagtgat   6060
ctgcccgcct cggcccccca aagtgctggg attacaggca tgagccactg tgcccagcct   6120
agaagaatat tttaaatatt tgtttagaag aggatttttt gtgtttttttt ttttttttg   6180
acatggtctt gctctgtctc ctaggctgga gtgcagcagc ttgatcatag ctcactgcag   6240
cctcaaagtc ctgggctcca gcaatcctcc catctcagcc ttccaagtag ctgggaccac   6300
aggcacacac catcatgccc agctaagtgg agatgggatc ttgcaatgtt gcccaggcta   6360
gcctcaaact cttgggctca aacaatcctc ctgccttggc ctccaaaagt gctgggatta   6420
taggcatgag ccactgtgcc tggcctagaa aagtatttta atttttactt tgaagagtta   6480
attatttaga aaagtgtttt cagtaatatt ttgtaggtga ttttcatttt gttggcattt   6540
tatttataat gctgattttt tgttactaca ttgaagttag agaatatgat ctatataatt   6600
ctgtatttca gaatgtattg ggatgttgag acttttctta tggcccaata tgtgtgatat   6660
attttgaaat atttaatata cacacatgta gtccctatag ggtacaattt taataactgt   6720
gttattgtct tattaatcac attgctcatg taatatcctt gtttcctttt gaggattctg   6780
atgattgtat ttccgtctat ttttccatgc atttttttctg cttttaactt tttaactgca   6840
tctttttttt tcactataaa ttttagaggt aattttccca ccacttaggg tacatttata   6900
ttttcctttt gatgcaagat tttatcacaa cctcttttct gagcttttct cacccttgtc   6960
atttttttgtg tgttactgat ctttaaacaa gcgagatcca ttcaggcaga atggctacat   7020
cttttactcg cctgttttct gtcccctctc tctcctctcc ccagccatca aagagctatc   7080
ttgataactt ttaaaattat ctttcacaac aggcactgtc tttaaacaca gaggaagaca   7140
ttcatcgggc tttccagtcg cttctcactg aagtgaacaa ggctggcaca cagtacctgc   7200
tgagaacggc caacaggctc tttggagaga aaacttgtca gttcctctca gtaagttgaa   7260
tcaatagaac aataaaagtt gcattcaaca tacctggtga tatagagtct gggagaaaga   7320
ccctagagaa attgagaaat ttatgttaac caatttaaaa aaattgcact attttttttt   7380
ctaagatggg gtctcactac gttgcccagg ctggtcttaa actcctggtc tcaagtgatc   7440
ctcctgcctg ttgggattac agatgtgagc caccacgccc agcctaaact tctttttttt   7500
tttaaagact gcaattctat aattatacct tgcattagta ttgcaaaagt agtctctact   7560
tttcttgaaa ggtaaaattg aaaggtaaaa ttctcaagtt catttctggt tattcagggt   7620
```

10/22/03 2:30:59 PM

```
tcaatacata cctattcaca aactctgata ttttaacata tcttcatatg atcactttta   7680
aagagttatg tatattcttt ttattaaaaa aagataacat atttagaatt tttggaagtt   7740
tgctgacatt tgtatttagc aatgcagcct cactgaacat ttttctctcc aaagacgttt   7800
aaggaatcct gtcttcaatt ctaccatgct gagctgaagg agctttcctt tatcagagct   7860
gcagaagagt ccaggaaaca catcaacacc tgggtctcaa aaaagaccga aggtcagaat   7920
gacaagttat tgcaccttcc tcccaacccg tcctcctcct gcggctcttc ctattcctcc   7980
ttcccgcctc ttatatcctc tctcctcctc ctctccctcc tatccctcct ccctctcctc   8040
acccacctcc acctttccac tccgcccccc ctaatttcac gggtgtttca gatggtcaga   8100
gtagtgttga ctggcagggc ctcctggcat actgaacctt gatggactca taaaggttct   8160
gatcagacat tcaggttttc agcaacagag atttactttt gtctattctc ccaggaccag   8220
agtagctgat acaaatgtca aaagagggcc agccacggtg gctctcgcct gtaatcccag   8280
caatttataa ggccgaagtg gacatatcac ttgaggtcag gagttcgaga ccagcatgac   8340
caacatgggt ggacccccca ccgcccaaca tatttactaa aaatacaaaa attagccagg   8400
tgtggtggcc catgcctgta atcccagctg cttgggaggc tgagacatga gaatcacttg   8460
aacctgggag gcagaagttg tagtgagctg agatcatgcc actgaactcc agcctgtctc   8520
aaaaacaaaa accaaacaaa aaacacaaat gtcaaaagaa tctcaggcca ggtttccagt   8580
ttaataactt gcattaaaat atactctccc tggcctgtaa cattcacatg tcaggtgact   8640
ccattgtctc tgcgagaagg agattggtgg acagatcttg cctgaggtat acacttgggc   8700
tgcctcttcc taggttctgg gggacctcca tcaccattac ctttacctgc taaggtcact   8760
cctgactttt catgtcttcc acttaagctc ctttagtttg acttgataag cctacatttg   8820
attggttaac tgccgaccct ctctcagggc tgatcagttc cacagactga aaataccctc   8880
catttggggt tgaaccttat tcatctacat ttcagaaagt gacgtgttcc agtctaggcc   8940
tccaagacca atgatggtct gatgaaccat tcagactcct ctgcgccaat tatgcttagt   9000
accaccagga acatttccat ttctgtgaat aaatgagacg gtaaagaatg ggagacgttc   9060
ttcgcttaaa gtctcagcag ttgtttcccg cattcctgct tggagtattt accacggatg   9120
ctctcttcag gcagtgggtt agcagggatg ccctcagttc attgaaacag taccacttga   9180
tctccaggga aagaaggggt gatctttgtt tgcccacatc ctcttttcca gggatgccta   9240
gtgctttgtt gaggggattc agcaggaata tctcctccaa aagcttctgg aaactcccca   9300
tgtgcccaat gtcagctctt cccgctttga gccgtccatt ctggttgctt ctgacatgtc   9360
catgtatagt cacagaatgt tagaactggg tgtgatcatg aagggttgga tcaaacactc   9420
caattaacca tgtgagacaa acaccccttc agcctatcac atttcctgct ggtcttgttc   9480
tccaacctgg tgtaattttt ctactttgta ccaacctgct ttcctcgagt gacttaggta   9540
tctttcacca tcctcaactt ggtggatgtt ctcaaggtgt cagtaatcat gaataccact   9600
catatgtgct gtttttattt ctctacataa caacccaaac tcagcaaagt tgaaaacaga   9660
agtttgcttc tcaactaatg atccaggatc atccaatgca tcaggttctt ataaaaagca   9720
actgaatgta gtctctactt ttcttgaaag gtaaaattga agagttgttg ccgggtagct   9780
caattgatgc agaaaccagg ctggttcttg tcaatgccat ctacttcaaa ggaaagtgga   9840
atgaaccgtt tgacgaaaca tacacaaggg aaatgccctt taaaataaac caggtggggg   9900
aagcttttta aaatcctgct agtttgatga agaagttgaa tggaaagatt taactttgta   9960
aaagtgtaag tgacataagc gtaagccaaa aggaatttga aacttaaagt atttctgaat  10020
gaatttctta actcagtaga aaaaaacgga aggagtaaaa gatatttgct gcatatatat  10080
attatatata cgtatatata atatatatat atatatgtag tgttttatca ctgctcttaa  10140
ctgcctttga taatttctca taaaccattg ctgccaccta gttttggaaa ctaaagatct  10200
tcctataagc ccaatttact tggctagaaa gcaaaaaaaa aaaaaaaaaa gtgttaaggt  10260
agtgtgatat gtgggagtga gaggcagtat agggcagggt agagggagag aaggtgaaaa  10320
catgtgtctt taattagtta tttttaaaat taaagtaagt tttatttgaa ttgttaacta  10380
attatcatta attcagtatt acaggctttt aatattaaaa cttcatgaca aagaccttag  10440
ttttgacatt gaagtaaaac ttaattaagg caggcattag aataatttgc caaatcttcc  10500
agcccctaaa aagatactat tttaatgtaa ttaaaaaaca aaagcaggta accctcctgc  10560
atttttgta aggtgtactt taacttaaaa aaattagttc tctagttgca aagggtggga  10620
ggaggagaat tctaaccctg gttttagaac tattttaatt tttataataa atgatctgta  10680
tcaatttttt aaagtattac gttaataaat gtaatacttt gctgagcttc tatgtgctta  10740
tgcctcttct gtattttaaa aaagttattt cattagagta tcagaattga aaagattggg  10800
ttaaaataca ttactacata tgtaggtcgt tactctttct gagagagtgt atccatttat  10860
actccctgtc atgctgttgt ggaactataa gtttcatccc actttatgat ttttttctc   10920
atatgttggg ttggataaat aggaaaaaca atacacattt ttttctaatt aaatcaaaac  10980
aaatttgtat ttaatttcat ttgattatat tgctttctta gatctatttg ctgagcacaa  11040
tttaaatgag aaacatcttt ctcctctgga aaatgtaggg tatcacattt tattttgcag  11100
aagaaaacct ttcccagggt ggtactgtgt ctgcttgcaa tgaagatagg aaggaactgg  11160
ttgacttttt ttttttttt ttttttttt ttttttagtg ttaactgggg catgaatgtg  11220
gcggtttcca tcacaggtgc tgaaaacact cttggaggca actgcagctc ttttgaaagt  11280
```

tttaattgcg tctttcaata atccttcccc caggaggagc aaaggccagt gcagatgatg 11340
tatcaggagg ccacgtttaa gctcgcccac gtgggcgagg tgcgcgcgca gctgctggag 11400
ctgccctacg ccaggaagga gctgagcctg ctggtgctgc tgcctgacga cggcgtggag 11460
ctcagcacgg taagacccgg gctgcgggaa gaacccaggg acacctttgc gggcagaact 11520
cgagtgccac ttccacctct catattcacc ttctgagttg gcgatgcggc agacgcacac 11580
tgtgcaggca cttggcgttg ggatcgaact tttgttcaag gctgactttt cccaatattg 11640
tctgcgtgat ctgccaaact acacatctca gtcctctgtt ttttcatcgc tagaaggagt 11700
gggcggcggt taaaatgcct tttaaaataa atcaggtagg aggaagctta taaaaatcct 11760
gctagtttga tgaatggcag acttttaact ctaaaagcat aaatgactgc tcggggttat 11820
tgcctcctag agttatgatg aggataaaat gtgggtaatt caggtaacaa gcttaccaca 11880
ttgcctggca actagtaaat gctctacaaa tgtgatccat tattacaatc atcattctta 11940
gcattatgct tttaaagtct aggaacctga aatagagaat gaggaagtct taactttgac 12000
ctaacaaggc tgggaggggg catccaggga ggtgtgaagt ccagttctca gagggtggga 12060
ccagaggcag cctctgaggg cacatccagg cactcggctt cctttcagca tggatctcca 12120
gggtgagaga gtcaaccatg gcaaatggca ggcagtggga ccccatgact taagaggtct 12180
gtgtgcgcag cagccattgg ctctccctct gcccaccttc ctgaaactat gctccggaaa 12240
ctatgcagaa tctctctggg gcagataatc ctctggtaac ctctctgctc cggaaactat 12300
gcagaatctc acctgggaca gataatcctg ttggagtggc tcacactgag agccctttcg 12360
tttccaatcc ttttctttac tagcaatggt ttgttgtctt taaaaagact atgtttgaaa 12420
aaaaaacaca gtcgcctggg cattgacact tgtcacaata caagatgtct ctggagttgt 12480
tggataagga gaggacagcc acagccttcc tgcctctgac tgcttggtgt ctctcccccc 12540
tgtcaaggaa gtggcacatg ggacatagga caagtaagag tgctcacaag cttctggcag 12600
atgaaggggc cactgatcct atgtgaacaa acaacaccta cgtgcaaggg gaggaaggga 12660
actgtgagtg cctgtgcgct tgtacatgtg cactgaagtc ggaatcttaa agtctaattc 12720
tggtctttca ggtggaaaaa agtctcactt ttgagaaact cacagcctgg accaagccag 12780
actgtatgaa gagtactgag gttgaagttc tccttccaaa atttaaacta caagaggatt 12840
atgacatgga atctgtgctt cggcatttgg gaattgttga tgccttccaa cagggcaagg 12900
ctgacttgtc ggcaatgtca gcggagagag acctgtgtct gtccaagttc gtgcacaaga 12960
gttttgtgga ggtgaatgaa gaaggcaccg aggcagcggc agcgtcgagc tgctttgtag 13020
ttgcagagtg ctgcatggaa tctggcccca ggttctgtgc tgaccaccct ttccttttct 13080
tcatcaggca caacagagcc aacagcattc tgttctgtgg caggttctca tcgccataaa 13140
gggtgcactt accgtgcact cggccatttc cctcttcctg tgtccccaga tccccactac 13200
agctccaaga ggatgggcct agaaagccaa gtgcaaagat gagggcagat tctttacctg 13260
tctgccctca tgatttgcca gcatgaattc atgatgctcc acactcgctt atgctactta 13320
atcagaatct tgagaaaata gaccataatg attccctgtt gtattaaaat tgcagtccaa 13380
atcccatagg atggcaagca aagttcttct agaattccac atgcaattca ctctggcgac 13440
cctgtgcttt cctgacactg cgaatacatt ccttaacccg ctgcctcagt ggtaataaat 13500
ggtgctagat attgctacta ttttatagat ttcctggtgc ttagccttat aaaaaaggtt 13560
gtaaaatgta catttatatt ttatcttttt ttttttttt tttctgagac gcagtctggc 13620
tctctgtcgc ccaggctgga gtgcagtggc tcgatctcgg ctcactgcaa gctccgcctc 13680
ccgggttcac gccattctcc tgcctcagcc tcccgagtag ctgggactac aggcgcccgc 13740
caccacgccc ggctaatttt ttgtattttt agtagagacg gggtttcacc gtgttagcca 13800
ggatggtgtc gatctcctga cctcgtgatc cacccgcctc ggcctcccaa agtgctggga 13860
ttacaggctt gagccaccgc gcccggctat attttatctt ttatcttttt ctttgacatt 13920
taccaatcac caagcatgca ccaaacactg ctttaggcac tggggacaca aaggggacag 13980
agccatcctc ctttgacacc tggtcttcag ttctgtgccc aacgtatata gttttgacaa 14040
tgaccaggtt ggactgttta atgtctttca acttaccacg taatcctctt gtagggatca 14100
catctttctt tatgatattg tatttctcta cctctaacag taaaaattcc attcaaccct 14160
taaagctcac ttcaaattct tctttgagaa gtttttcctt tctccgcaac cagatgtaca 14220
tatttgaact ctctttgtac ttggagggca cttctttcgt ggtagttctt ttatttttat 14280
taatctctgt atccttagat agtcctccaa caaccaaagg ttgggactct gtcttacata 14340
tctgggtgcc cctcatagtg cagtaataag taagttgatt atatacgagc tatgtaactt 14400
atatttttta atggttggat atcactgagt ttttttttt aagaattttt ttattgaggt 14460
aaacttcaca taacataaaa ttaactattt taaagtgaga agttcagtgc cacttagtat 14520
tgttaacaat gttgcataac caccaccttt atttaaagtt ccaaaaaaaa tgttctcctc 14580
taaaaggaaa ccccatccca ttaagcagat actctccatt ccttccttcc tccagccccc 14640
agcaaccacc aatctgcttt ctgtctctat ggatttatct attcttgcta ttttatataa 14700
attgaattgt atgagacctt ttgtgtctgg cttctttcac ttagtacaag tttttgagat 14760
ttatttacat agtagcatgt atcaacactt cattttttatg gccaaataaa attgtattat 14820
gtgtttatag cacaatttat ttatccactc attcattgat ggactttggg ttgtttctga 14880
cttttggcta ttgggaatag tgctgctatg aatgtttgtg tacctgtatt tgtttgaatg 14940

09950082 - 091702

09950082 - 091204

cctattttgc attctcttgg gtatatatct aggagtggaa ctgctgggtc atatgttaat 15000
tctatgttta gctttttgag gaacagacaa actgttttcc acagcagttg aaccattcca 15060
cattcccacc agcaatgtat gagaattcca atttctgtcc acttcctcac caacacttat 15120
tattttcctt ttccttttt taaaaaaaat aagttatggc catcttagtg ggtgtgaagt 15180
ggtatctcat tgtgtttttt atttgcattt cctatgtaat gagctagaaa ctaaagtaca 15240
aactagatgg gacatccagt ccctttgata gataatgctg agtaaaaaat gagatgaaag 15300
acatttgttt gtttttagaa cacgagtgac agtttgttaa aaagctttag aggaggaatg 15360
aaaacaaagt gaagtacact tagaaaaggg ccaagtggac atcttggatg tcaagtgcct 15420
agttcagtat ctttttttttt ttttttttttt tttttgagac agtgcctcac tctgtcaccc 15480
aggctggagt gtagtggcat gatctgggct cactgcaacc tcctcctcct ggattcaagc 15540
aattctcttg cttcagcctc ccaagtagct gagactacaa gcacccacca tcacacccag 15600
ctaattttgt atttttcagt agagacgggg tttcgccaca ttggccgtgt tggtcttgaa 15660
ctcctggcct caagcgatcc gcctacctca gcctcccaaa gtgctaggat tacaggcata 15720
agccactgag cccagcccta gttcagtatc ttttatgtaa attacaaaca tctgcaacat 15780
tatgtatcat atgcagatac ttattgcatt tcttttatta gtggtgaaag tgttctatgc 15840
atttattggc tcttgaattt cctcatctat gaattgtcat tcatacacct acttttctgc 15900
ttcgttttta catatgtctt tgcctattaa agatattatc cctctgtttt atattttctc 15960
tcattcttgt attgcctttt aaattttgtt atgatgtttc attaataaac agtgttttgt 16020
tttcctctat aatcaaa 16037

<210> 2140
<211> 16107
<212> DNA
<213> Homo sapiens

<400> 2140
cgcggcgagc gcagcagcag ggccgggtcc tgcgcctcgg gggtcggcgt ccaggctcgg 60
agcgcggcac ggagacggcg gcagcgctgg actaggtggc aggtgagggc gtccccgcgc 120
acggctgggg taggggacgg gagtggcgag cttcaggtcc accggctgcc accgagtgat 180
gggaccggag gacaggagag gtcgctcagc caagagcccc ggggaggcgg tgccttctcg 240
gtggggtcag caacggtctc tgggggggtgc ctgggagcgg cagccggtct ccgccttggc 300
ggcccacagc caccgcggac gcctccctcc cggatgtctc ctcgctgccc ttccctggcc 360
gaagccctcc cctgcagcct cctccccacc tgccggccct gtgttctcac tgctcttctc 420
tgctctggga tccgcaggat gacgtctgtc ctgcttcttc actgtccttt acagtcacca 480
gtctcggccg ggcgcagtgg ctcacgcctg taatcccagc actttgggag gccaaggcgg 540
tcggatcctt ggagatcagg agttcgagac cagtctggca aacgtggtga aaaccggtct 600
ctactaaaaa tacagaaatt agccgggcat ggtggcccac gcctgtaata atgtcagcta 660
tgtgctgagg caggaaaatc acttcaactc gggaggcaga ggttgcagtg agctgggatt 720
gcgccactgc actccagcct ggcagacaga gtgagacttc gtctcaaaac aaaaaaaaga 780
aaaacacaaa aaaaccacca ccaacaacaa caaaaaaata aagccaccag tctcggagtt 840
tcaaatctga gcactcttat ccatcttaat tctttcaata attcagctaa acgaatgggg 900
tcctgagaat ctgcagagcc aggctcagcg ctcgcctgca gagcctgcgg tctgtgggga 960
ccaccagcaa gatgaggaat caccttcggg aggaagggtc gtgctgggga gggtcgcgcc 1020
ggcggggtca agagaacctc ctccagggtg ggaatcagag cctccgggcc gcggtgtttg 1080
agggtgagtg gaattaatgc cgtgatggac atggggcctt ctaaggggga ccaacagtgt 1140
ttgtgaagag ttgactttgg gaggggttca ggatggccag aggtggaggc tgtgacctca 1200
gtgaggctgg atcaagggag ggggcaggtg ggtaagacac cgttttaaca aggtggcttt 1260
gagcggccac ctttgagggg cctaagggcc cctgggagat ttaggaggaa ggacaagagg 1320
attaagacac cgctttctga ggtgccgtgt ggctgtggcg tgggggtggc tgggggagtg 1380
ggttgtgttc attgtccaag gctctccagc gctttgcgtg gcgttttggg gagcacagat 1440
gaggtgtccc gacagtgggg agtggctcta gggagaccag aggctcggga gggggcctgg 1500
gcattagacc aggcacagaa tccgaagtgg gaagaaatgt gggcgtagag ggcaggcctt 1560
ggggatgggt gtgggggagg agggggagat ggaaaggagt cagggaggtc tcccaggctc 1620
acctggagga gtcagggtct catttccaag tgcactggga actgcagcct gggggtgggg 1680
gttcatttgg tttcaggcct gtggccaaga gacccacccc ctcacattca cactttggtc 1740
tccagtggct tcacaggcac cacctccttg ttctcgcctg ttttactcct caccttgggc 1800
tgtttcttgc ctttccattc tggcgttctg cagggatcag atccttcctc tcacgcacaa 1860
tctacactca tggcttttgc tgggagtaat gagtaaagct cccaaataga tgtttctgag 1920
ttaggaagca cattaaaaac aaaacaaaac gaagcaaaac cacacaattg tccaagtccc 1980
actctgtgtt caagggtcac atgatgtgca gaagctggtg atgggcagga gctctgaatg 2040

gagttactgg gatgtcaggc cgcgtgggcc tggggcaggc tggctgactg ggagcagcct 2100
ggctccaccc cggctgtcca ggacgcactc acttgcctct atggatgaca gctccttgcc 2160
tcacagctgt ctgtctctgg gtcagattca gcatctcagt gtcttttgtg tatcagctga 2220
atgtcaggga ggccacaggc tggtgcccag ttgaaaatct cacaaggact ctttgtaaat 2280
gcatgcaaga ataagaacag cattttcctc ctcctccctg accccattct cctcctcaga 2340
tgggacgatc tggtccttac ggaaagaatt ggagttcact gcttccagct ctgtgtgtgt 2400
gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgagaga gagcgagctc tgcaggcgag 2460
ccagttctgt tgctattgct ggtttgagct gctgccatca ccacacttag ctaattacct 2520
taacatttgc acttaatttt tggccggaga ctaacagaaa ataaattttt ctccaattta 2580
aaatacttac gaactttaag aagaaaacaa aaagtacgat tccaaaattg ccctgtagta 2640
agtaggtcag taacattcag ggagtgtgga aactgcattt ctctttattc ttcccttcca 2700
ggccctgcat catggaaact ctttctaatg caagtggtac ttttgccata cgccttttaa 2760
agatactgtg tcaagataac ccttcgcaca acgtgttctg ttctcctgtg agcatctcct 2820
ctgccctggc catggttctc ctaggggcaa agggaaacac cgcaacccag atggcccagg 2880
taagcttgcc cgtccgccag gagcagggac tggcctgggc tgcgtgttct gtcaccagct 2940
tcacactcac actccagagc cactgagaaa ggagggcagg actggggccc gagtgtgcac 3000
tggccgtttc agggaggcgg ggtccactgg ggaagaagtg gggcagggca gggaggcagg 3060
aactctgctc caccgagatt tatttggggg aaactttcct cggttaatcc cttggaaaag 3120
accatccaag ctgtcttgtc ctagcgcaga atctttcttt agaaaatgac actgaaatta 3180
tttgaaacat aagttgcaaa gaactacctc ttttttggag caagagactt tgtaactaaa 3240
ctttcattgg taaggaaggt taatacctgt ttcaagttgt ttctgtacca acagctcagg 3300
gagggcatca acagaaattt gcaagaagga ttccagggca agtgcttcat tacagctgca 3360
cactgtgcag gtactgctca gctcagtctc accaacattc agagaacctg tggaaatgat 3420
tcaagatcag tgcttgtccc cagacctttg tggaaaggag aggagacata cacgtgagat 3480
gaaaccgaaa agcgccatcc ctgagtgcag gccgctggac acgccttcat catgggagtt 3540
gtcctttgtt caatatgact gtctttttct ttgatgacgc ttttcaatag tgaattactc 3600
attttaataa tttcccagct cattgtgtga agaagggagg gtttatgtgt aaaggctacc 3660
agccttaata ataagcacag agaggctctc taaaagatat atatatttgg aaatagggca 3720
ttgcaatgaa aatacgcatg ccatggcaag ctatgtgcac attcagggag gtgaaataac 3780
actaagattt ttaaaggaaa aagtaaagag gattacataa ttcctttgaa ataattattt 3840
ttggcaaaaa gatcaataac gaaggtgatg tcagtgtgag gttggatggg gagttcctgg 3900
gtagatgtcc ttgcacaagt attttgttgt gtaaggctgt gatggccttt gtgcaagagc 3960
gtaggttttt agagtccttt gtgatagttg tgttatcagg cattcaagcg tgagaaccct 4020
ctcttcatgg ccttccctgt ctgtttgtca aaggtttttg gttttgtttt tttaatatta 4080
gtgactccat tttgattctg aagttcctta tgctgaaatc tgtatgatct ttttctatgt 4140
tttaggctca ctgataaacc cttatagaaa gctttttga gagcaccaaa attgtctggg 4200
taccttctta ggtgtgagac tgagctctct ccatggctcc agtgttcaac tggatgcttg 4260
tgagacacca aacatactga gtacacgttg ctacctgtaa catgcaggga agcgttaatg 4320
gcagcagaaa tattttaaag aattatttat ttttccttca ttatataact ggtaaaagtc 4380
cactataaaa atttttaaaa aataaaagta gaagggagga aaaaatccct atgaatccat 4440
caaacagaga caaccaccct tgataatgta aagcatcttc ctccagtcct atttcttttt 4500
tttttttcg agacagagtc ttgctctgtc gcccaggctg gagtgcagtg gtgcgatctc 4560
agcttactgc aagctccacc ccccgagttc acaccattct tccacctcag cctcccgagt 4620
agctgggact acaggtgccc gcccccacgc ccagctaatt tttatttta gtagagacag 4680
ggtttcactg tgttagtcag gatggtctcg atcacctgac ctcgtgatcc acccgccttg 4740
gcctcccaaa gtgctgggat tacaggcgtg agccactgcg cccggcccta tttcctgatt 4800
ttcacttgac attttgtact ttggtgatta tatggtatct ttacttttat aaatgatttt 4860
tcagctaatg tgaggattcg gtgagacagt ccatgtaaag caagtgctca acatgtgttg 4920
gctatgaata gtaatagtgg tgtcacagcc tcaggtgaaa ctggtcttag cttttggttc 4980
tgttctattt gacagggttt ctcatcaaca gtctatgagc tgtctaaagt aaatttagta 5040
gcttcctctt ttttctatgt tatagaacag tgtgtattgc atgagaaata gaaattgctt 5100
gaatattaga aaaaaaaatc cctcaaaaga tcatctaagc ctttttagaa gtaattctct 5160
ctctccctct tatttttttt ttgttcattc attgtgactg atagattctg ttttttgttt 5220
gttttgtttg ttttgttttg ttttttgaga tagagtatct gctctgtcac ccaggctgga 5280
gtgcagtggt gctatctcag ctcactacga cctccaactc ccgagttcaa gttcacgtga 5340
ttctcctgcc tcagcctccc gagtagctgg gattacaggc acatgtcacc atgcctggct 5400
agtattcata tttttgactg gcatttggta acttataatc tgtactttac tgaaaataat 5460
tatatagagt ttttgtttta acattccctt tgtttatatt gctgtaacct ctttttcaca 5520
tataacttta ctttggggtg ctttttctta catgtggtgg gtggctgtct gttttgtatg 5580
tatgtgtgtt ttcttttaaa gaaccagctc ttggattcat tgatcatttt gtgtttgtcc 5640
caaaattcct tgggagtttt tctgtatctt ttctaacata atgattttaa agttttagca 5700

09550082.050102

ttttattact ttcttggtaa tattgaaaac aatgctatgt tttaacttat ctttggccaa 5760
actctttggt ctaatatata tcacccatat tttgattatt ttctaaatca tatgtcatat 5820
acttatttag aagaatttgt ttgtttgttt gttttttgag aaggagtctt gctctgttgc 5880
ccaggctgga gtgcagtggt atgaccttgg ctcactgcaa cttccgcctc ctgggttcaa 5940
gtgattctcc tgcctcagcc tcccaagtag ctgggattac agcaagcat caccacaccc 6000
ggctaatttt cgtattttta gtagagacag gatttcgcca tcttggccag gctggtcttg 6060
aactcctgac ctcaagtgat ctgcccgcct cggcccccca aagtgctggg attacaggca 6120
tgagccactg tgcccagcct agaagaatat tttaaatatt tgtttagaag aggatttttt 6180
gtgttttttt ttttttttg acatggtctt gctctgtctc ctaggctgga gtgcagcagc 6240
ttgatcatag ctcactgcag cctcaaagtc ctgggctcca gcaatcctcc catctcagcc 6300
ttccaagtag ctgggaccac aggcacacac catcatgccc agctaagtgg agatgggatc 6360
ttgcaatgtt gcccaggcta gcctcaaact cttgggctca aacaatcctc ctgccttggc 6420
ctccaaaagt gctgggatta taggcatgag ccactgtgcc tggcctagaa aagtatttta 6480
atttttactt tgaagagtta attatttaga aaagtgtttt cagtaatatt ttgtaggtga 6540
ttttcatttt gttggcattt tatttataat gctgattttt tgttactaca ttgaagttag 6600
agaatatgat ctatataatt ctgtatttca gaatgtattg ggatgttgag acttttctta 6660
tggcccaata tgtgtgatat attttgaaat atttaatata cacacatgta gtccctatag 6720
ggtacaattt taataactgt gttattgtct tattaatcac attgctcatg taatatcctt 6780
gtttcctttt gaggattctg atgattgtat ttccgtctat ttttccatgc atttttttctg 6840
cttttaactt tttaactgca tctttttttt tcactataaa ttttagaggt aattttccca 6900
ccacttaggg tacatttata ttttcctttt gatgcaagat tttatcacaa cctcttttct 6960
gagcttttct caccccttgtc attttttgtg tgttactgat ctttaaacaa gcgagatcca 7020
ttcaggcaga atggctacat cttttactcg cctgttttct gtcccctctc tctcctctcc 7080
ccagccatca aagagctatc ttgataactt ttaaaattat ctttcacaac aggcactgtc 7140
tttaaacaca gaggaagaca ttcatcgggc tttccagtcg cttctcactg aagtgaacaa 7200
ggctggcaca cagtacctgc tgagaacggc caacaggctc tttggagaga aaacttgtca 7260
gttcctctca gtaagttgaa tcaatagaac aataaaagtt gcattcaaca tacctggtga 7320
tatagagtct gggagaaaga ccctagagaa attgagaaat ttatgttaac caatttaaaa 7380
aaattgcact attttttttt ctaagatggg gtctcactac gttgcccagg ctggtcttaa 7440
actcctggtc tcaagtgatc ctcctgcctg ttgggattac agatgtgagc caccacgccc 7500
agcctaaact tctttttttt tttaaagact gcaattctat aattatacct tgcattagta 7560
ttgcaaaagt agtctctact tttcttgaaa ggtaaaattg aaaggtaaaa ttctcaagtt 7620
catttctggt tattcagggt tcaatacata cctattcaca aactctgata ttttaacata 7680
tcttcatatg atcactttta aagagttatg tatattcttt ttattaaaaa aagataacat 7740
atttagaatt tttggaagtt tgctgacatt tgtatttagc aatgcagcct cactgaacat 7800
ttttctctcc aaagacgttt aaggaatcct gtcttcaatt ctaccatgct gagctgaagg 7860
agctttcctt tatcagagct gcagaagagt ccaggaaaca catcaacacc tgggtctcaa 7920
aaaagaccga aggtcagaat gacaagttat tgcaccttcc tcccaacccg tcctcctcct 7980
gcggctcttc ctattcctcc ttcccgcctc ttatatcctc tctcctcctc ctctccctcc 8040
tatccctcct ccctctcctc acccacctcc acctctccac tccgcccccct ctaatttcac 8100
gggtgtttca gatggtcaga gtagtgttga ctggcagggc ctcctggcat actgaacctt 8160
gatggactca taaaggttct gatcagacat tcaggttttc agcaacagag atttactttt 8220
gtctattctc ccaggaccag agtagctgat acaaatgtca aaagagggcc agccacggtg 8280
gctctcgcct gtaatcccag caatttagaa ggccgaagtg gacatatcac ttgaggtcag 8340
gagttcgaga ccagcctgac caacatggtg ggacccccccc cccccaacat ctctactaaa 8400
aatacaaaaa ttagccaggt gtggtggccc atgcctgtaa tcccagctgc ttgggaggct 8460
gagacatgag aatcacttga acctgggagg cagaagttgt agtgagctga gatcatgcca 8520
ctgaactcca gcctgtctca aaaacaaaaa acaaacaaaa aaacaaatgt caaaagaatc 8580
tcaggccagg tttccagttt aataacttgc attaaaatat actctccctg gcctgtaaca 8640
ttcacatgtc aggtgactcc attgtctctg cgagaaggag attggtggac agatcttgcc 8700
tgaggtatac acttgggctg cctcttccta ggttctgggg gacctccatc accattacct 8760
ttacctgcta aggtcactcc tgacttttca tgtcttccac ttaagctcct ttagtttgac 8820
ttgataagcc tacatttgat tggttaactg ccgaccctct ctcagggctg atcagttcca 8880
cagactgaaa ataccctcca tttggggttg aaccttattc atctacattt cagaaagtga 8940
cgtgttccag tctaggcctc caagaccaat gatggtctga tgaaccattc agactcctct 9000
gcgccaatta tgcttagtac caccaggaac atttccattt ctgtgaataa atgagacggt 9060
aaagaatggg agacgttctt cgcttaaagt ctcagcagtt gtttcccgca ttcctgcttg 9120
gagtatttac cacggatgct ctcttcaggc agtgggttag cagggatgcc ctcagttcat 9180
tgaaacagta ccacttgatc tccagggaaa gaaggggtga tctttgtttg cccacatcct 9240
cttttccagg gatgcctagt gctttgttga ggggattcag caggaatatc tcctccaaaa 9300
gcttctggaa actccccatg tgcccaatgt cagctcttcc cgctttgagc cgtccattct 9360

09650082 - 091204

EP 0 950 082 B1

```
ggttgcttct gacatgtcca tgtatagtca cagaatgtta gaactgggtg tgatcatgaa   9420
gggttggatc aaacactcca attaaccatg tgagacaaac acccccttcag cctatcacat   9480
ttcctgctgg tcttgttctc caacctggtg taatttttct actttgtacc aacctgcttt   9540
cctcgagtga cttaggtatc tttcaccatc ctcaacttgg tggatgttct caaggtgtca   9600
gtaatcatga ataccactca tatgtgctgt ttttatttct ctacataaca acccaaactc   9660
agcaaagttg aaaacagaag tttgcttctc aactaatgat ccaggatcat ccaatgcatc   9720
aggttcttat aaaaagcaac tgaatgtagt ctctactttt cttgaaaggt aaaattgaag   9780
agttgttgcc gggtagctca attgatgcag aaaccaggct ggttcttgtc aatgccatct   9840
acttcaaagg aaagtggaat gaaccgtttg acgaaacata cacaagggaa atgcccttta   9900
aaataaacca ggtgggggaa gctttttaaa atcctgctag tttgatgaag aagttgaatg   9960
gaaagattta actttgtaaa agtgtaagtg acataagcgt aagccaaaag gaatttgaaa  10020
cttaaagtat ttctgaatga atttcttaac tcagtagaaa aaaacggaag gagtaaaaga  10080
tatttgctgc atatatatat tatatatacg tatatataat atatatatat tatatatacg  10140
tatatatata tattatatat atatacgtat atataatata tatatatata tgtagtgttt  10200
tatcactgct cttaactgcc tttgataatt tctcataaac cattgctgcc acctagtttt  10260
ggaaactaaa gatcttccta taagcccaat ttacttggct agaaagcaaa aaaaaaaaaa  10320
aaaagtgtta aggtagtgtg atatgtggga gtgagaggca gtatagggca gggtagaggg  10380
agagaaggtg aaaacatgtg tctttaatta gttatttta aaattaaagt aagttttgat  10440
ttgaattgtt aactaattat cattaattca gtatttacag ctttttaata ttaaaacttc  10500
atgacaaaga ccttagtttt gacattgaag taaaacttaa ttaaggcagg cattagaata  10560
atttgccaaa tcttccagcc cctaaaaaga tactatttta atgcaattaa aaaacaaaag  10620
caggtaaccc tcctgcattt tttgtaaggt gtactttaac ttaaaaaaat tagttctcta  10680
gttgcaaagg gtgggaggag gagaattcta accctggttt tagaactatt ttaattttta  10740
taataaatga tctgtatcaa ttttttaaag tattacatta ataaatgtaa tactttgctg  10800
agcttctatg tgcttatgcc tcttctgtat tttaaaaaag ttatttcatt agagtatcag  10860
aattgaaaag attgggttaa aatacattac tacatatgta ggtcgttact ctttctgaga  10920
gagtgtatcc atttatactc cctgtcatgc tgttgtggaa ctataagttt catcccactt  10980
tatgattttt tttctcatat gttgggttgg ataaatagga aaaacaatac acatttttt   11040
ctaattaaat caaaacaaat ttgtatttaa tttcatttga ttatattgct ttcttagatc  11100
tatttgctga gcacaattta aatgagaaac atctttctcc tctggaaaat gtagggtatc  11160
acattttatt ttgcagaaga aaacctttcc cagggtggta ctgtgtctgc ttgcaatgaa  11220
gataggaagg aactggttga ctttttttt ttttttttt ttttttagtg ttaactgggg   11280
catgaatgtg gcggtttcca tcacaggtgc tgaaaacact cttggaggca actgcagctc  11340
ttttgaaagt tttaattgcg tctttcaata atccttcccc caggaggagc aaaggccagt  11400
gcagatgatg tatcaggagg ccacgtttaa gctcgcccac gtgggcgagg tgcgcgcgca  11460
gctgctggag ctgccctacg ccaggaagga gctgagcctg ctggtgctgc tgcctgacga  11520
cggcgtggag ctcagcacgg taagacccgg gctgcgggaa gaacccaggg acacctttgc  11580
gggcagaact cgagtgccac ttccacctct catattcacc ttctgagttg gcgatgcggc  11640
agacgcacac tgtgcaggca cttggcgttg ggatcgaact tttgttcaag gctgactttt  11700
cccaatattg tctgcgtgat ctgccaaact acacatctca gtcctctgtt ttttcatcgc  11760
tagaaggagt gggcggcggt taaaatgcct tttaaaataa atcaggtagg aggaagctta  11820
taaaaatcct gctagtttga tgaatggcag acttttaact ctaaaagcat aaatgactgc  11880
tcggggttat tgcctcctag agttatgatg aggataaaat gtgggtaatt caggtaacaa  11940
gcttaccaca ttgcctggca actagtaaat gctctacaaa tgtgatccat tattacaatc  12000
atcattctta gcattatgct tttaaagtct aggaacctga aatagagaat gaggaagtct  12060
taactttgac ctaacaaggc tgggaggggg catccaggga ggtgtgaagt ccagttctca  12120
gagggtggga ccagaggcag cctctgaggg cacatccagg cactcggctt cctttcagca  12180
tggatctcca gggtgagaga gtcaaccatg gcaaatggca ggcagtggga ccccatgact  12240
taagaggtct gtgtgcgcag cagccattgg ctctccctct gcccaccttc ctgaaactat  12300
gctccggaaa ctatgcagaa tctctctggg gcagataatc ctctggtaac ctctctgctc  12360
cggaaactat gcagaatctc acctgggaca gataatcctg ttggagtggc tcacactgag  12420
agccctttcg tttccaatcc ttttctttac tagcaatggt ttgttgtctt taaaaagact  12480
atgtttgaaa aaaaaacaca gtcgcctggg cattgacact tgtcacaata caagatgtct  12540
ctggagttgt tggataagga gaggacagcc acagccttcc tgcctctgag tgcttggtgt  12600
ctctcccccc tgtcaaggaa gtggcacatg ggacatagga caagtaagag tgctcacaag  12660
cttctggcag atgaaggggc cactgatcct atgtgaacaa acaacaccta cgtgcaaggg  12720
gaggaaggga actgtgagtg cctgtgcgct tgtacatgtg cactgaagtc ggaatcttaa  12780
agtctaattc tggtctttca ggtggaaaaa agtctcactt ttgagaaact cacagcctgg  12840
accaagccag actgtatgaa gagtactgag gttgaagttc tccttccaaa atttaaacta  12900
caagaggatt atgacatgga atctgtgctt cggcatttgg gaattgttga tgccttccaa  12960
cagggcaagg ctgacttgtc ggcaatgtca gcggagagag acctgtgtct gtccaagttc  13020
```

10/21/2005 08:05:56

gtgcacaaga gttttgtgga ggtgaatgaa gaaggcaccg aggcagcggc agcgtcgagc 13080
tgctttgtag ttgcagagtg ctgcatggaa tctggcccca ggttctgtgc tgaccaccct 13140
ttccttttct tcatcaggca caacagagcc aacagcattc tgttctgtgg caggttctca 13200
tcgccataaa gggtgcactt accgtgcact cggccatttc cctcttcctg tgtccccaga 13260
tccccactac agctccaaga ggatgggcct agaaagccaa gtgcaaagat gagggcagat 13320
tccttacctg tctgccctca tgatttgcca gcatgaattc atgatgctcc acactcgctt 13380
atgctactta atcagaatct tgagaaaata gaccataatg attccctgtt gtattaaaat 13440
tgcagtccca atcccatagg atggcaagca aagttcttct agaattccac atgcaattca 13500
ctctggcgac cctgtgcttt cctgacactg cgaatacatt ccttaacccg ctgcctcagt 13560
ggtaataaat ggtgctagat attgctacta ttttatagat ttcctggtgc ttagccttat 13620
aaaaaaggtt gtaaaatgta catttatatt ttatcttttt ttttttttt tttctgagac 13680
gcagtctggc tctctgtcgc ccaggctgga gtgcagtggc tcgatctctg ctcactgcaa 13740
gctccgcctc ccgggttcac gccattctcc tgcctcagcc tcccgagtag ctgggactac 13800
aggcgcccgc caccacgccc ggctaatttt ttgtattttt agtagagacg gggtttcacc 13860
gtgttagcca ggatggtgtc gatctcctga cctcgtgatc cacccgcctc agcctcccaa 13920
agtgctggga ttacaggctt gagccaccgc gcccggctat attttatctt ttatcttttt 13980
ctttgacatt taccaatcac caagcatgca ccaaacactg ctttaggcac tggggacaca 14040
aaggggacag agccatcctc ctttgacacc tggtcttcag ttctgtgccc aacgtatata 14100
gttttgacaa tgaccaggtt ggactgttta atgtctttca acttaccacg taatcctctt 14160
gtagggatca catctttctt tatgatattg tatttctcta cctctaacag taaaaattcc 14220
attcaaccct taaagctcac ttcaaattct tctttgagaa gtttttcctt tctccgcaac 14280
cagatgtaca tatttgaact ctctttgtac ttggagggca cttctttcgt ggtagttctt 14340
ttatttttat taatctctgt atccttagat agtcctccaa caaccaaagg ttgggactct 14400
gtcttacata tctgggtgcc cctcatagtg cagtaataag taagttgatt atatacgagc 14460
tatgtaactt atatttttta atggttggat atcactgagt ttttttttt aagaattttt 14520
ttattgaggt aaacttcaca taacataaaa ttaactattt taaagtgaga agttcagtgc 14580
cacttagtat tgttaacaat gttgcataac caccaccttt atttaaagtt ccaaaaaaaa 14640
tgttctcctc taaaaggaaa ccccatccca ttaagcagat actctccatt ccttccttcc 14700
tccagccccc agcaaccacc aatctgcttt ctgtctctat ggttttatct attcttgcta 14760
ttttatataa atcgaattgt atgagacctt ttgtgtctgg cttctttcac ttagtacaag 14820
tttttgagat ttatttacat agtagcatgt atcaacactt catttttatg gccaaataaa 14880
attgtattat gtgtttatag cacaatttat ttatccactc attcattgat ggactttggg 14940
ttgtttctga cttttggcta ttgggaatag tgctgctatg aatgtttgtg tacctgtatt 15000
tgtttgaatg cctattttgc attctcttgg gtatatatct aggagtggaa ctgctgggtc 15060
atatgttaat tctatgttta gctttttgag gaacagacaa actgttttcc acagcagttg 15120
aaccattcca cattcccacc agcaatgtat gagaattcca atttctgtcc acttcctcac 15180
caacacttat tattttcctt ttccttttt taaaaaaaat aagttatggc catcttagtg 15240
ggtgtgaagt ggtatctcat tgtgtttttt atttgcattt cctatgtaat gagctagaaa 15300
ctaaagtaca aactagatgg gacatccagt ccctttgata gataatgctg agtaaaaaat 15360
gagatgaaag acatttgttt gtttttagaa catgagtgac agtttgttaa aaagctttag 15420
aggaggaatg aaaacaaagt gaagtacact tagaaaaggg ccaagtggac atcttggatg 15480
tcaagtgcct agttcagtat ctttttttt ttttttttt tttttgagac agtgcctcac 15540
tctgtcaccc aggctggagt gtagtggcat gatctgggct cactgcaacc tcctcctcct 15600
ggattcaagc aattctcttg cttcagcctc ccaagtagct gagactacaa gcacccacca 15660
ccacacccgg ctaatttttgt atttttcagt agagacgggg tttcgccaca ttggccgtgt 15720
tggtcttgaa ctcctggcct caagcaatcc gcctacctca gcctcccaaa gtgctaggat 15780
tacaggcata agccactgag cccagcccta gttcagtatc ttttatgtaa attataaaca 15840
tctgcaacat tatgtatcat atgcagatac ttattgcatt tcttttatta gtggtgaaag 15900
tgttctatgc atttattggc tcttgaattt cctcatctat gaattgtcat tcacacacct 15960
acttttctgc ttcgttttta catatgtctt tgcctattaa agatattatc cctctgtttt 16020
atattttctc tcattcttgt attgcctttt aaattttgtt atgatgtttc attaataaac 16080
agtgttttgt tttcctctat aatcaaa 16107

<210> 2141
<211> 466
<212> DNA
<213> Homo sapiens

<400> 2141
taaacctctt ctctttgtga attacccagc ctcatgtatg tggtttttt ttttatagca 60

acacaaatga accaagacac agagggcaca atcatgacag aaattcttgt tccgctctct 120
gttttaattt agaggttgat aatatccagt attggtgagc atacgagaaa acaggcatcc 180
ttaccttgtg tgtgggaatg tggattaagg gtttttggaa ggaagtgggc agccttttca 240
ttttaaatgg acattctttt tgggccagca tctcactttt agatgtctga tctacataag 300
tatttgcata catgcttaga tatgctaagg ttttccctgt agtattttca aaggcatttt 360
tgcagggtaa tttaaaaaat cgtggtaaag aaaaacaaaa tttaccatct taagcatttc 420
taagtgtaca gttagcattg ttgaatagca aaaaaggaaa gaaaaa 466

<210> 2142
<211> 466
<212> DNA
<213> Homo sapiens

<400> 2142
taaacctctt ctctttgtga attacccagc ctcatgtatg tggtttttt ttttatagca 60
acacaaatga accaagacac agagggcaca atcatgacag aaattcttgt tccgctctct 120
gttttaattt agaggttgat aatatccagt attggtgagc atacgagaaa acaggcatcc 180
ttaccttgtg tgtgggaatg tggattaagg gtttttggaa ggaagtgggc agccttttca 240
ttttaaatgg acattctttt tgggccagca tctcactttt agatgtctga tctacataag 300
tatttgcata catgcttaga tatgctaagg ttttccctgt agtattttca aaggcatttt 360
tgcagggtaa tttaaaaaat cgtggtaaag aaaaacaaaa tttaccatct taagcatttc 420
taagtgtaca gttagcattg ttgaatagca aaaaaggaaa gaaaaa 466

<210> 2143
<211> 1669
<212> DNA
<213> Homo sapiens

<400> 2143
gcggctccct ctctccctct ggcccagtcc cttccgcttg tgtccgggaa gctgtgggcg 60
gtgatttaac atgactcact tgggggcata ggcgctatga agttcagtgg ctgggtgcca 120
ggtggcgcca atgacaccct ttttctcaga gcccgggctg aatggacacc tccctcaaag 180
ccttccagac ccagggttac ggccgttccc agagacatgt tcccgtgctg ctgggcacac 240
ctgcagaggg gagggaaggt cctgtgtttg ctggtgctgc tcgtcctctc acttcctacc 300
gagcatcatg ttgcaaacaa atgaccttgg caccaccgtt ttgcaaattg tcctttcttg 360
ggctttactt tttggtctat gtgagcaaaa tgaactgaag tcaaggtacg actcccaata 420
acctgctgtg ggatgagagg gcttttgtca tttatgcagt ctgattagtt atccacgccc 480
agagctacac tttctcgatg cttctcagct ctgactctca cagggccagg gagaaatttt 540
tgtgcccccc aaatcatgta gttggataca aaacattccc tggaggccta ccattctcaa 600
atccccgtgc agggctctgt ggggtgcaac atgaaactcg ctctaactcc ctacgtggag 660
gacagacaga cccatcctaa ctccaaagcc agacacaagg gacaaaggta ccaaaaaggt 720
gcaaggtgca agaatggacg acgctggtct tccaatttgc tggaatatct gtgcggctag 780
aatggtgtct tgttcagcat atatcagcat cttgcccttg ctctgtcctg cctggccaca 840
aaggacactc agacaacacc ggcctcataa atgctgcctg gagaaaagcc tagctaggta 900
cggagggtca gggtatttca gaaaagagaa actgcttcag ccaatgctca tgagatttac 960
cagggaatag caaacaagtc tagtgcaagc cagggttggg ggagtgggag ggtgattagc 1020
agagatcaat ctagaaagga ggtcaaggtt ctgtaggtgg ggaaagaggg tgcttgtgta 1080
ttaaaacttg ttttccagca gtttggagat ttctcaaaga actaaaaata gaactaccat 1140
tcatcccagc aatcccatta ctaggtatat actcaaagga aaacaaattg ttctatcaaa 1200
aagacacctg tactcctatg tttatcgcag cactattcac aatagcaaag acatggagta 1260
aacccaggtg cccatcaacg gtgaactgga taaagaaaat gtagtacata tgctaccatg 1320
gaatactacg cagctgtaaa gaggaaagaa atcatgacct ttgcaacaac atggatacag 1380
ctggaggcca ttatgctaag tgaattaatg cagaaacaga aaactaaata tcacatgttc 1440
ttatttgtaa gcagaagcta aatattgggt gcacacaggc acaaagatgg gagcaataaa 1500
cactggggat tccacaaagg gagcaggcag agggaagggt tgaaaaacta cctatcaggt 1560
cctctgtgca ctacttgtga gacagaatca ttagaagccc aaacctcagc atcacacaat 1620
atacttatat aacaaacctg cacattgacc cctgaaccta aaattaaaa 1669

09550082 - 093204

<210> 2144
<211> 21010
<212> DNA
<213> Homo sapiens

<400> 2144
cggaagtgga aacggaaacc tttttaggga gtccaaggta cagtcgccgc gtgcggagct 60
tgttactggt tacttggtaa gctggtgtga ggggaacctg ggagggtcag ctccggtcct 120
gggtcgggag gggtgggggc cagaggattc agggccggag gttctggtgg gggcccagtg 180
ggcgggaccc gaggacggag gggccgggag gccgagaggg gcggggtcgc ggcggggcct 240
gagggacgga ggccgggata cttgggaaag gatccgccgg ccttgaactc ccgcctccgc 300
cgcccctagg cctcatggcg gtccgagctt cgttcgagaa caactgtgag atcggctgct 360
ttgccaagct caccaacacc tactgtctgg tagcgatcgg aggctcagag aacttctaca 420
ggtgcggcgg gagccccggg gcttacggtg gcggggaggc gtgcgcagga gtcaagagct 480
ccggcagtgg gagggtgccg gcccctctgc cccgccacca ccgagtccat gtccctacag 540
tgtgttcgag ggcgagctct ccgataccat ccccgtggtg cacgcgtcta tcgccggctg 600
ccgcatcatc gggcgcatgt gtgtgggtaa ggcaggtgga ggacgccgag ggagggagtg 660
gtctccaagc accattaatt acacccccgg agggaacccg gagtgaccta gggattccca 720
gggtatcatc tgttatctct gggcactata gaatctctca ggccaagcgt caggagatcg 780
gggcaaccct ctagcaaagg ctgctggata atagtaataa caaataatgt aaagtgcttt 840
cactcctgtt ctcattcctt cgtcacaaag acactagaag gtaggagtta ctggcctaac 900
ttgactgatg aggaagttga gacttgacct aagtgactca gtaagttcca cacctagttc 960
ctagtgttgg agaaggattt ttctcttttt ttttttttt tgaggccaga tttttgctct 1020
ttcgcccagg ctggagtgca gtggcaagat cacagctgtc tgcatcctca acttcttagg 1080
ctcaagtgat cctcccacct cagcctacca ggtagctagg gccacaggca cgtgccacca 1140
cacctggcta atttttacat ttttggtaga gacgcggcct ccctgtgttg cccagcctgg 1200
ccttgatctc ctgggctcaa gtgatcttct taccttggtc tcttaaagtg ttgggattat 1260
aggcgagagc cactataccc agccgaggat ttgtatctca tctctccctg ccactgactg 1320
ggcaaggtgc tttctctttc taagcatcca tttctgtctc tgtaaagatt agctaagata 1380
tgcggtcttc ctgctcagtt acgttggaat cttaaattcc ctttaccaca tctctaccct 1440
accttcctac ctgtcagcac tgttaattct ggtcgttggt cctttccttt ttattattat 1500
tattattttt ttttgagatg gagttttcgc tcttgttgcc caggctggag tgcaatggca 1560
cgatcttggc tcactgcaac actctcttca agtgattctc ctgcctcagc ctcccaagta 1620
gctgggatta caggcgcatc ccgccacacc cggctaattt ttttgtattt ttagtagaga 1680
tggagtttca ccatgttggc caggctggtc ttgaactcct gacctcaggt gatcctccca 1740
cctcggcctc ccaaagtgct gggattacag gcgtgagcca ctgcgcccgg ccggtccttt 1800
cattaagctg gatctgtctt ccattactgc tgcccattgt ttcttagttc tgctcattga 1860
ggtcactttt agaagtctgt ttattttatt tttttacttt tactttaatt tttaaaaatc 1920
ttaagcctgc ttgggaggtc gaggcaggtg gatcacctga ggtcagcagt tcgagactaa 1980
cctgaccaac atggagaaac cccgtctcta ctaaaaatac agaaattagc cgggtgtggt 2040
ggcgcatacc tataatccca gctacttggg aggctgaggc gggagaattg cttgaaccct 2100
ggaggtggag ctcaccctgc ggtgagctga gattgtgcca ttgcatttca gcctgggcaa 2160
taagagtgaa actgtgtctc aaaaaaaaac aaaaaacaaa aaacaacaac aacaaaaact 2220
taagcctagt gacctcaaag tattttccta ttcagttaaa atactctgat ctctaaccat 2280
gcccttagga cttgaagcaa gttctgacaa caagggagat tttagcttag tccttgtgta 2340
ttttatgatg ggagtgacct ggaattcaga aattgattgg cgtgtatttg tagattgttc 2400
attcttgttg ctgtatggtg tgttttgtgt aagtatatca caacgtattc atccattcca 2460
tcgacagtgc atttgggcag ttttcacttt ggtctgttag gaatagtgct gctggccggg 2520
catggtggct cacgcctgta atcccagcac tctgggaggc cgaggcgggc ggatcacgag 2580
gtcgggagat cgagaccatc ctggttaaca cggtgaaacc ccgtgtctac taaaaataca 2640
aaaaaattag ccaggtgtgg tggcgggtgc ctgtagtccc agctacttgg gaggttgagg 2700
caggagaatg gtgtgaaccg gggaggtaga acttgcagtg agccgagatt gtgccactgc 2760
actccagcct gggcaacaga acaagactcc gtctcaaaaa aaaaaaaaaa agtaatagtg 2820
ctgctatgtt tttttagtga acacatgtac atatttctac tgggtatatg atacctaaga 2880
gtggcatggc agagtcacag gttatgtgac tatttagtag tagttgcaga tgatgccaga 2940
taattatcta aagtgattga ccaacttaca ctcctgtctc agtatgagag ttcagttgct 3000
ccatatatct ttgccaacac ttggaattga tgacttgtaa aaattttagt cattctggct 3060
gggggcagtg gctcacacct gtaatcgtag cactttggga ggtcgaggtg ggcggatcac 3120
ctgaggttag gagttcgaga ccagcctggc caacatagtg agaccccatc tctacaaaat 3180
cacaaaaagt tagccaggtg tggtggcacg cacttgtaat tccagctact caggaggccg 3240
aagcaggaga atcacctgaa cccaggatgc agaagttgca gtgagctgag atcgcaccac 3300

09505080.090704

EP 2 204 456 A1

```
tgcgctccag cctgggtgac agagtgagac tctgccttaa aaaataataa tctagccatt   3360
ctgctatgtg tgtagtgtta gctcagtttt ttttgttttt ttgttttttt tttttggaga   3420
cggagtttcg ctctgtcacc caggttggag tgcagtggcg cgatctcggc tcactgcaag   3480
ctccgcctcc cgggttcacg ccattctcct gcctcagcct cccgagtagc tgggactaca   3540
ggcgcccgcc accacgcctg gctaattttt tgtattttta gtagagacgg ggtttcaccg   3600
tgttagccag gatgatctcg atctcgatct cctgaccttg tgatctgccc acctcagcct   3660
cccaaagtgc tgggattaca ggcgtgagcc aacacgcccg gcagctcagt ttttaagtag   3720
caaaatatac agctaatgcc aagagctcag cttccctccc agttggtgat ggtgaagtag   3780
gcaggattta ttgggattcc tgggtggtct ctggcctgcc ctgggtgttt tccagatcag   3840
tgggttggag ggctgggctc tgggcctaaa gctttcctgg gaaagctgat tgggctgggc   3900
tgagtggtat cctcagcccc tagggctcag caggcatctt gtgtattcac cctctaattt   3960
gggtttctcc agggaacagg cacggtctcc tggtacccaa caataccacc gaccaggagc   4020
tgcaacacat tcgcaacagc ctcccagaca cagtgcagat taggcgggtg gaggagcggc   4080
tctcagcctt gggcaatgtc accacctgca atgactacgt ggccttggtc cacccagact   4140
tggacagggt gaggcagccc aacttgaccc aagagtcaca gggccatcct agtcagtggt   4200
tagccactgt tctttcccaa caggcagcaa ttaggggtct ctcctgtggt ttttctatat   4260
gggctcttga gtttcaggta ctcattggaa tagtgataac agaggcctta tcaagtgtca   4320
gaaagaagct ggggagggta tgaatccttc atgattgggg agattgaacc atccagtcct   4380
gcatcctggg ccaggatagg tgattgactg ttgaactttt gactgtgggt gagaggggaa   4440
agaagtgata ttgagaccag cctccagctg ttcagggcat gcatgaatat taggggcttc   4500
acagctgccc ttgactctgc tctaagctgt acttcctcct ttctctgggt gaggctttca   4560
tatgaggtac agaggagaaa tgaggggctc agggagccaa ggcctggatg cttctgggca   4620
tggagaacct tggttctggg gctgtaagtt ctgagccctg aacacaatat ctttgattga   4680
caggagacag aagaaattct ggcagatgtg ctcaaggtgg aagtcttcag acagacagtg   4740
gccgaccagg tgctagtagg aagctactgt gtcttcagca atcagggagg gctggtgcat   4800
cccaagactt caattgaaga ccaggatgag ctgtcctctc ttcttcaagt ccccccttgtg   4860
gtaagcattc ctgtcctctg aaccccgtct cccgaggcag atccttttgc ctagtgtttg   4920
ggagtctggg tcattacctg ccacagtttg ggactggggc tgcaggtcag ggaggagcag   4980
ggtttgggga gagtcttcat tgaggaggga gagaatttgg tgccgtgact cacattgagc   5040
ccatcccttg gcaggcgggg actgtgaacc gaggcagtga ggtgattgct gctgggatgg   5100
tggtgaatga ctggtgtgcc ttctgtggcc tggacacaac cagcacagag ctgtcagtgg   5160
tggagagtgt cttcaagctg aatgaagccc agcctagcac cattgccacc agcatgcggg   5220
attccctcat tgacaggtac ctggggcctc tcctttcttc tgctcagggt tgggggttaa   5280
cttgcatttt gagagtatgg ggaaaagatg tcatctagaa tgggagccta ccagtttgtt   5340
ctggtagctt ctcgagtgtg agagcatatc tgtacactgc tgagcagata agagccagca   5400
tattcaaaaa atatttcttg agcatctgct aatcctcatc tttgtggttt ttcagggcta   5460
ggatactaga gcagtagctg cttgagcagc ttgtcagagc tggtcccggg atgagggctg   5520
aggcaggcac ctcacttgag agtgaggtgg gctctgtgaa acagctactg accgtgcgct   5580
ttcctttctc ttcagcctca cctgagtcac cttccaagtt gttccatggg ctcctggctc   5640
tggactgtgg ccaaccttct ccacattccg cccaatctgt accggatgct ggcagggagg   5700
tggcagagag ctcactggga ctgaggggct gggcacccaa ccctttttca cctgtgctta   5760
tcgcctggat ctatcattac tgcaaaaacc tgctctgttg tgctggctgg caggccctgt   5820
ggctgctggc tgagggttct gctgtcctgt gccaccccat taaagtgcag ttccctccgg   5880
gccattctga atgtgatgtt tggggccctc agcctgtgta caatccctgc actctccagt   5940
tgttccagca ttctgggaag atagggtggg atgaacacaa cacacaccca acccagttca   6000
ccacctccac acacgccatt cccttctcct ctaccatcag gatgtgaggc ttcatcctgg   6060
ggcaagaaac actctccact acagttctcc ttttttcttt tttcttttttg aggcagtgtc   6120
tccctctgtc acccaggctg gagtgttgtg acgcaaggat ggctcactgt agccttgacc   6180
tgttgggctc aagcgatcct ctcgcctcgt ttatttttt gtagaaacga agtcactgtg   6240
ttgcccaggc tggtttatac tcctgaactc aagcgaccca ccgcctcggc ctcccaaagt   6300
gttgggatta caggcgtgag ccacggcgcc cggtctagtt ctcacagttt tcacccgact   6360
tctgcgccgg tcttctctgg ccttgaaagg cagagagtcc gttccgattt tcccctgagc   6420
tgggcaagtc ccctgtgaga gctctggggc atctggcttc ggggcattct ttgactaagg   6480
tggatggagg ttgcaggtct tttcctgggt gggcgtgggg cggggcagcg ggttcccagc   6540
gtcctcctgg cctgggcgtc ttggaggctg ttgggatgca ttccgtcccc ttgcgcgggg   6600
cggggccttg aggcgctggg gcgggattgg cgggggacgg tcgcggagcc ccgccccgaa   6660
gcacagggtc gagtcccttc tttccgctcc aacgcacgga gggtgaggtc ggtacgcggt   6720
ggtggcgtca cggcgccagc tcctcccgac gccgaggtgg gttccgggag acccgcgggt   6780
ctggctgcga gaggtgaggg cagagccggg gcggggccct agcggggtgt cccggcgacc   6840
cagaccttaa agggcttctc ttcttgcaga ccatgggggc tcagctaagc ggcggccgcg   6900
gcgccccgga gcctgcgcaa acccagcccc agccccagcc ccagcctgcg gcgccggagg   6960
```

gcccggaaca gccccggcat ccgccccagc cccagcccca gccccagccc cagccccagc 7020
ccgagcccag cccgtggggg ccgctggacg acgtgcgctt cctcatcgcc tgcacttcct 7080
ggtactgacg gcgtcctccg caggatgtcg cccgtctgtc cgccgtcccc tgtggttctt 7140
gcctgccttg tctcctctcc ccacgtccct gcgtctctta cacccctcc cacccgaggc 7200
tccccagaga tagcagagaa ttcgaagagg tcgccgggga ctggaaagaa gtcccggcag 7260
ggccgccttc gcagtctaca ccccagcctg cttcccagcc tacacccaga cccagctcag 7320
accttcgtga ccaccccatc cctttctccg gctggctggg tcgggggcat ccctctctgt 7380
cgctggcttc cagaggcagg acaggcctcc tggtaagccc gcaaagttgc tgacctcctg 7440
acttcgtctg ccttttatta atatctgtat tgctgataac cgtgctcttg actatgtgtc 7500
ccaggtcatg tcccaggtca tggagaagcc cgtgccacag tgaccctccc catactcctg 7560
gggggggctgc tctccatcct ggatcgtaag gaggcatcat caggctgtgt tcctggaacc 7620
ccaataaccc tgggccccca gggccagcct gttgtagagg gaggctatct gaccgccggt 7680
ctggcagagg agatgggtgg gcagctccca gacaccccaa aggacccggt tctcttccca 7740
gagcgtccta aggttactct tggaacctga tctttgttcc ctcatcccag ggaaatgaca 7800
cactctgtat ttctgtttta tttagaaatg atttaaaaaa cattatacaa aggctgatca 7860
gtttaaaatg tgactgacac tgaaatgctg tgatgtcccc caggctgagg ggaagctagg 7920
ctctggggcc cccagtgctt tgcccctctg tctgccctgt cctggggtga tggacaaaca 7980
gatgaccaca ggcaggagaa tctgagattg gaagcctcta ggctgagccc tctgggcctg 8040
gccccacatc cctcacctct gcagcctggg ctgcctgcct ccatctcctg ttcattctca 8100
gctggcctgc caggagccaa tggggagcct ggcgggaggc gggggtgcct agagctttca 8160
agaagtgaga gcaccaacct gaggagtgga cagggaccag gaagtggggg aagggaggcc 8220
aggaagaggt ggatacagga gacacttctc atctcatctc agaccctaga ggggtccaca 8280
gatggggaca caagacccag ccagcccact ggatggcccg ggcaagtaac aacctctctg 8340
tgcttcatct gagggcacgg tgagagttac cgtcggcctc ccagggccta acacgagttt 8400
catgtgagtg gacaggtgtg agctaataaa gtgctttgca aagtataaaa cactgtacaa 8460
acctatgaat cactaatatc tccgcagttg ttccctgcct gtcccaggga gcctgccctt 8520
ggccaaaatg agaaaaaaca aggatgatga caggggacac agcggaccca catgggcacc 8580
tctgggacaa gagattttgc ttgagacagc tcccagggca gcaggagtcc ctgtctgtgc 8640
tacagggtaa gccgacccca atcccagaga ccacagggtc gggggcaagg cccatgcagg 8700
ctcagtgagc aggggtggca tccgagaccc ggccagcacg ctggagactg cctgacacct 8760
ttttggcttt ggcagagagc cagtgggcat tgatgaaccc attggccttg tctagggctc 8820
ctcagtgaca agcagggctg cctccgccgt actgtggagc aaggcaggcc aagccctagg 8880
aactcctgct ggagacagtg aagggcgggc cagtgaaggt caaaaaggga gccccctcag 8940
cttggggctg ctaccggtag gggtgtcctt ctaagagcag tgtgggaaga tgggcccagt 9000
gagcgaggtc agcaagggcc aagctctggg aaaacactgc ttccagccga gagattgagt 9060
cggcctcaga gtagctggag tcggcctcag agtagtgggg gcactgagca cttcagacgc 9120
cctggtcccc ttccgaagga ctcccaggct ctgccagtgt tggccctgca gccatctctg 9180
cctcacctaa ctggtgaggc tgagctccag gctgcaagtg acagactgga gcaaagctgg 9240
ggacagtgac aatagagggg agtggaggac ggtcacaaac tcggatcttc ctccagaaat 9300
ggggtcagct tctgccccag ctctgtagcc ataggagcag agctcagcta ctggggtgtc 9360
tgggcgctag agtggcctta gcagcacctt ggtccttgtc gcctggggga gggccgctat 9420
gctggcctca tcaccaagac agtcacctct agttcaccta aagcctcaag cagcctttgc 9480
aaaatgggac agtagtgaca ggacatttaa atattcacga tgtgacagct gggtccttgt 9540
cagacccagc tgggccacag ccctgcctgc agcatgtgac cctaaatcct gggtctccga 9600
agagaccctg acaagtggag caggtttcct gagggatctg ccgtctgcca gcagggaaac 9660
ccaggcttgt tgctcactgt gtcagaagca ggggtcctgt agccttggag gacagtgggg 9720
tgggggtagg gggacatctg accagcaggt gttggcaaaa ggggaccagg actggtggta 9780
tctcccggat gggggatgag agctagtgct ggcttcccac agagggtgct gggttccagc 9840
caggagtgga gctgtggtac ctcatggaca ccacaggatg ccgtgaccac aggggctcct 9900
cctggcatgg tccctgcctc cggatggagc ctggcctatt cccttaagta gggagtagtt 9960
tgcccaggac agaaggctgg cagctgggtg ccagacaccc accctggggc acagccccca 10020
taattccctg ccccacgctc agcctaggcc aatgcaccca ccacttcagc tgtacgaccc 10080
cagcctaggg ccctgctggc cctggtgagc actggccaga gctgcccctc agaccctggt 10140
gaggaagggc ctggctggcc agaccaagtg gatagagagg gctctgggct gctcacaccc 10200
attcctggac tggccgctta tagtaggtga caggctgagg gcctgtcttg ttcttgaact 10260
ggaagatggt gtagaccagc accaggatgc agagggacag gatgcagggg atgaccacgg 10320
ccacggcgtt cacggagccc ggcacatcgt tgatggtcac catgatgtcc acgtcgtcct 10380
ggggcagccg ccgctccttc cgccgctcca cctccttctg gttgcagccc atccagtcac 10440
gcaggatgtt gcgcgggtag cctggctcca cgctcagttt ctggttgtca aacttccagt 10500
agtcccggcc cttgtagaaa taggtgtaat ctgcagaaat acagcccagc atcaccactc 10560
ccagacactt ccggcacctg ctctggggca gtgtgaaaag gagggcacag gcactgtggc 10620

09650080 - 09420401

aagggaggca aggtgggcac acctggaggt ttggggtgca gtgcttggct gagtcatgga 10680
gtaagaagct gcagaggggg acacccggga cctggagtgg tccgcctgtc atctacgggt 10740
gctaggaaac cagaggggct tcagggagaa ctgggacatg gttcactttg tgctgcccag 10800
acaggacccc ttgcacgcaa gcctgggtca cagctctgtc acactgtgcg cacaggtccc 10860
ccttgccccg ctcatgtggg ctccattaag cctcagcctg gctcctgctt gagccaaggg 10920
aggcagggag caagatttca ccttgtgttg acagcaagac ctctctgcaa ttatggattt 10980
ttttggcttg gcacacatca cttcacaaca cagatgcagg acctttggga gccttctggg 11040
agagaggctg ggcagccctg ccaatcactc cctgggcaac caccccaggg ctcgagcaac 11100
agcctgagcg gcccagccag tgggcaaagc agcttgctta ggccgtcctc attggctggc 11160
ttcccaccgt ggctagggct ttcattggtc tcggtccttg atgtcacctg tctctgaggc 11220
tccccaaaaa gggagatctt gtgcgtaaag catcaggtat acaagacagc caacaaatag 11280
cagctgtggc cattggcttt ctcagcagtg aagcctcctc agagactcct tcccagccat 11340
ctctaacacg gccccctcta gctcgttgct ctctcccagc atttatttcc ttttttttt 11400
tttttaagac aaggtctcac tccattgcct aggctggagt acagtggtgc agttgtaact 11460
cactgcagcc tcaaactcct ggtcttaagc aatcctctgg cctcagcctc ccaagtagct 11520
gggactacag gcacatgtca ccacgcccag ctaatttttg tatttttttt ttgtagagat 11580
gaatctcact atgttactca ggctggtctc gaactcctgg cctcaagtga tcctcccacc 11640
tcagcctccc aaagtgctgg gagtctttcc cttatagcgt ctgttgccat cttgctttat 11700
gcccctagac ttggacgtct gcaagtcctg ttgactgcta cgtccccagc tcccaccaca 11760
caagctgtct attattatgg agtgagtgaa tgaatcctgt caatccacat aaactgaaac 11820
ccatgatgat gacaatgatg atgacgatag cagctaaaat atacagcatg gatggtgtgc 11880
taggcattat ttctaagtat gctacataat ttgtcttctt taatcctcac aaaaccatta 11940
tataaaggta ggtactgtta ttatcatttt ataaatgaga aaacagaaaa cttattaaag 12000
atttgctcag attcatagtg agtggtacta tggtggttac gaacccagcc agtccagctc 12060
tagagtctgt gtttttgacc atatcaatgg agatctattt aacaaacact cctggaggcc 12120
cactctgcat ctggccaggc tagcagctcc tcctgagaag ctcctaggct ggtggggaga 12180
caggctgagt gtctgatggc agtcgtgggg gctggtggcc agcatggctt ctaggaggag 12240
ttcaggaaac ataaaaagtt tctctcttga tgcagtggct cacacttgta atcccagggc 12300
tttgggaggc tgaggtggga ggattgcttg aggccaggag tttgagacca gcctggccaa 12360
catagtgaaa ccctgttgct acaaaaaaat gtaaattagc caggcacagt ggcatgtgcc 12420
tataatccca actactcggg aggctgatga ggcaggagga tcatttgaga ctaggaggtt 12480
gaggctgcag tgagctatga tcatgccaca gcattccagc ctaggcgaca gagtgagacc 12540
ttatctctta gaatttaaaa aaaaattttt tttgaaggtt ttctttccat cttcttgccc 12600
tcgagccctg tgaaaaagtg gctttgaaac atgcatgccc atcattgctt ttcagattgg 12660
gtaactcaag gcgtccctgg agtacactga ggataagtgt ttgagaaatg ctgtctgaag 12720
gaatgaagtc agtctatgac aacgtctctc tgccgtgaat cattcctgca gatgaaaaag 12780
tgtgacttgg cagctggtaa gtgaattaat ggaccacgtg aacatgggta gatatgaggc 12840
agttgtctgc caccaggtgt tttttcaaac ctggacgccc atgggcactg agtatgcccg 12900
tgggcactgg tgaggaccac ataaaaccgg ctccccatgc ccaccctggc ccggccctta 12960
cgtacatcct tccttgctga tgaaggctcc ttggggagcc tgtgggatgc ccttccacac 13020
ggtgatgggc ttagggtagc cagggtccgt ggcccgccgc tcctcgctgt agcgccagta 13080
ccgctcgcct ttgaaaaagt aggtcttgcc cacaggttcc cagcgcagag ctgtgtcaat 13140
gccttcacgg ggcaaacagc tgcccagctc ccccaggctg tgggggtacc caggctccac 13200
cgtcacctcc ttaaacaccc aatacttgtc acctgtggcc aagaggagcc caggatcagc 13260
ttccccagtc actcagtgcc gtttgcccat cttcagggtg tcaggtgaaa acagtctgat 13320
gccctcagcc ccttggccca gttagagttg ggaagggcac gaagcctgag gccagtcaca 13380
gatcctggac aacttgcctc tgctgcctgg gctccgagtc ccaccctctt ttgttcatgt 13440
gacttgctcc tctctcctct ctggtgatct cagccactta catgactttg catatgcact 13500
accactcccc aaacctgcta ccagtgacac ccgactctga ggctctccca ctggacctga 13560
gcagcagagc cagaaaccct gacctccctc ggcctaccgg cagctctgca ttggctggct 13620
ccccagagct cctcatctgc accacagagg ggctccctcc tcatcacctt ctgcctccca 13680
ggtccccaac agggagtcct agcctcactg ttgaccctct ctttccttct cctctcagta 13740
ttcagccact tctttttttt aagatggagt ttggctcttg ttgcccaggc tggagtgcaa 13800
tggtgtgatc tcagctcacc acaacctcca cttcctgggt tcaagcgatt ctcctgcctc 13860
agcctcctga gtagctagga ttacaggcac gtgccaccat gcttggctag tttttgtaat 13920
tttagtagag acgtggtttc accatgttgg tcaggctggt ctcaaactcc tgacctcagg 13980
tgatctgcca gccttggcct cccaaagtgc tgggatttcg ggcgtgagcc actgcgcctg 14040
gccgagtatt cagccacttc tgaggccctc tgactctcct ggcagctgtc ccctgccctt 14100
cagctgcacg gctcctccct catttgggcc tcatgagtgg cgcgctccag aaccacctca 14160
gaaatggctg ccctgcccct gccatgtctg tcacctcctg ccctctggct ctctgctgct 14220
cggaaacatt ccatgaattt ccagccttgg cctaatggat caagaccaca ttctggcctg 14280

Docket No. PS804

WO 2004/050683 PCT/US2003/038014

```
gcagccaggg ctcttcagga tttgcctcca aatgaccttt ctgggccatt tctcacagct  14340
ttccaaggcg gggcctccgt ggccatcagg tgggccttct aagccctgtg gccgtccgta  14400
cacatcccag ccctgctcct ttattcagcc gttgtccctc tggaatgcct tccttgcttc  14460
tcactatctg tatctcaccc atctgaggtc tggcccgagt caagataact gtcatgaaac  14520
aacctagcac agtgctgggt acagggtggg caccttagct ccctcccaca ccctcccccg  14580
acctccccag cttgagtgac ctcttccctc tgggttctta cagaactgac ccgatggcct  14640
cccatgaggt actgggtggt cttcaattgc ttgtcccaca ctctacttca tgtggacgaa  14700
gctggtcacc ccaccaatct cggcacatac agattctcag tctcactttc tgacttgatt  14760
tgtcagaggt cagtgtctcc gttagactag aggggccctc tgaggacatc tgcctcccac  14820
cccgcctctt ccagtttaga tgggaaaaag gaggtcccaa gaccttgggc agggaactgt  14880
cccacagcac agtctacatt acctttgaag aagacaaatc tcccatcggc cctttcatag  14940
gctgcgtcga tgcgggcagg caggcccttc cagaactgct cgatctgcat ggggtagccc  15000
tcctgcactc ggttattgcg cagacgccag aaccagcgat cctgggagga agcgggagag  15060
ggggagagag gtgtgtcagg ccctgcctcc gaacccagtg attgcagctg tggggcttag  15120
gtcccaacag cccagccctc caccgagact gtccattagc tgcttctgac ttttaaagcc  15180
ctgggaggaa gacaggatgc tcctgtaact gtcttcaatt cagcctcctg ctgactcttg  15240
ctgctgggtg gacaatgaga caaacagcag acaggcctgg tgtggaaaag gaggtgtgag  15300
ggagccggaa aggatgatgt tggggcctgg agtggccaca tgggggcagt ggagcgtcac  15360
tgacatcagc cagactggtc ctcgggacag tgggaggctg gggtggtcac tgagcctggg  15420
ccgagcgccc tccatgaggc tggctccatc cagcagggcc aggatcatgg aagccaagtc  15480
atgggaattc cctcgagacc tgggcatgaa ttcacattcc tccatttata gctgcatgac  15540
ctaggcctca cctgcaagtg caggtaataa tggagaatca gatgagagat tctaggcaaa  15600
atgcccagac cagtacgggg cacacagtcc atgttgagta aatggcagct aaatagtccg  15660
agtccagtaa aaacgcctct tgtaactggt gcctcagtct tgggctggta cacaagcagt  15720
ctaggcaagg cctgtagcct ccaggcctca gttttctttc ttttttttct tttttagatg  15780
gagtctcgct ctgtcaccca ggctggagtg cagtggcgca atctcggctc actgcaagct  15840
ccgcctccca ggttcatgct attctcctgc ctcagcctcc tgagtagctg ggactacagg  15900
cgcccgccac cacacccggc taatttttta tatttttagt agagatgggg tttcaccatg  15960
ttagccagga tggtcttgat ctcctgacct tatgatccgc cctccttggc ctcccaaagt  16020
gttgggattg caaggcgtga gccactgcgc ccagcctcca ggcctcagtt ttcttatgtg  16080
taaatgggga tgataaaacc cggacctgcc tatgaacggt tcagttggat caaagtagaa  16140
tgagtgcaga agaagaagca tgatttgtaa aagatggtac aaaagctagt attttaaaag  16200
gtgttttaca aagcactttc acatccaggt ttttgacctt attttgactt tcatgtctct  16260
gttaagttga tctgagatat acggagtctt aagaaaggcc aggtgacttg cctagagcca  16320
ctcagtgaga agccagactg gggctgactc acgctgcccg attcctgcgc agtgctcagt  16380
gcgtgctggg agaactccac aaggggagcg aggcagcctc tttcaccatc ctgtgtgatg  16440
gagccaccct gcccagatcc ccttcagaga agggcttgtt gccccagtgg ccagcagtgt  16500
ggccagcagg cagttttcaa ctgtcagccc ctttggggat gttccctgct tcagagagct  16560
ctcctcagtc actggatgcc cttcctcatc cagtgattga atgaggtagg ggttataatg  16620
ttccagatat tttggaccca acgtaggctg agtgacaggc caccgtagcc ccagagctcc  16680
ctgcgggggt ggctgaggct gccatgggcc tctgttgcca cttaacctct ccctcttccc  16740
tgtcctgctt ccttctcccc ctcacaaatg ttgattctga aagtactctc taatcgaaat  16800
cctgcattcc agaccccacc tcagagttca ctccccgaga gcccaacctg caacacgtca  16860
agcagactgc caccctgtca gtccatggct gatggaggac agatgacaag atataccctg  16920
ggctgctgcc agtagcagcc cctcaagcct tggtagggtc tggagtcaga ctcagccacc  16980
actgacctag cccctactcc aagttgacca tcttcagagc cgggtactca ctggatcttc  17040
acacactctt tgttagagga atgactcccc caggtttcgg atggagaaac tgaggtccca  17100
agaagggtgg tcacagacca gaagccagct tccagcactt tctcccagca ttaaccccag  17160
gggaggtgag ggatcaccca tctttccccc tccctcttgg gaacagttga ttcacccagc  17220
agcactagga agagacccca tgccctggcc actgggctag ctcctgtcca ggccccattg  17280
taatcgaatc ccaaatcagg agccttcccc agctccatga tgtcggggag gaggaggaaa  17340
ggtcaggggc cagctgggtg gtgccaatcc attggcccta ccttaaagac aaacatctcg  17400
ccccggaaga gggccactgt gttgaagttg ccgtcacaga tgttgggttt ggtgcctggt  17460
gtggatggcc ggtccccgag gggcggccga gggggcctgg gctggcgctc gtgtttcctc  17520
tccgatggtg agtggatcct gcggacgggg agtgtaggga gtggccttgt gggctccaga  17580
ggctcggctg ggggtcctgg agagaggagc tgcatcttag agagggggca gccgtttccc  17640
gcctcccatt gccagtctca gcatcaccca ggcagctctg agacaagtct gtcccagttc  17700
agcctcctgt tccctctccc cagtttaact cccccagtct ttgagaaaat ggatgaaaat  17760
agccattaga atgggactct catctttcca tccccgaatc tggtatcttc tcttttctct  17820
ctcctgttac agagcaatca tgtccttcct tagggtcagc gctcttcctt aggccatacc  17880
ctctttgccc ccttcacacg cactggcccc acttcctcac ccccttcatt tattctcttt  17940
```

cccaccccag tgcagcttct acccgtcacc cactccaact gctctgccaa gatcatccaa 18000
tggttacttg actcagactt taataagcac atgcatcatc tggggatgtt gctaaaatgc 18060
agatgagggc tcagagggcc tggggtgggg cctgagagtt tgcattcctt cacactctca 18120
ggtgatgctg atgctgctgg tctgaagact acattttgag cagcaagatt catagaaaca 18180
ctttcctgga aacactctct tggttgtcct cctgcctcat gggctgttct ttctcagtct 18240
cctttgctgg ctgcgtgtcc tcatctgccc tactctagag gctggcgtgc ccttgggtcc 18300
tcttctcttc cgtctctaca ttttcatcct taggtcagtg cttcttcact tgggctgcat 18360
attaggatca cctttgggag cttttcaaac tggatgttca ggaagcacca ggccagctct 18420
ccaacttttt ttttttttt ttttttttg agaaggagtc tcgctccgtc ccccatgctg 18480
gagtgcagtg gcgtgatcta agctcactgc aacctctgcc tcccaggttc aagtgattct 18540
cctgcctcat cctcccaagt agctgggact acaggcacgt accaccacac ccaggtgatt 18600
ttttttttt ttttttttt ttttagcaga gatggggttt caccatgttg accaggctgg 18660
tcttgaactc ctgacctcaa gtgatccacc caccttggcc tcccaaagtg ctgggattac 18720
aggcgtgagc caccacgccc aatacccaac tattaataaa accaaatctc tagagctgag 18780
ggctgggtgt ctgtgttttt ttattagaat cccaaggtaa ttccaaaggg cagccaagtt 18840
gagaatcact gctctaggtg gtctcatcca ggctcatggc tttacagacc tgcatcagag 18900
ctgtccagta gagtgttctg tgatgatgga aatggtccat atctgcatcg ttcactacag 18960
tagcccctag ccacagccac atatggctac tgaggtctta agatgaatga ctagttctta 19020
gtgtgactga gacccactaa agaactataa ctgaaatgat aattttaata tatttttggg 19080
ggggtagaga caggggtctc actttgttgc ccaggctggt cttgaactcc tggcctcaag 19140
caatcctccc acctcggcct cccaaagcgc taggattaca ggtttgagcc accgcgcccg 19200
gcctaataaa tataaattta aatttcatta ctatgaaatt taatactagt ttatttaata 19260
gtagtttatt taatacatac tagtgtatga ctagtggtta ctgtattgaa caacaaagat 19320
cccaaataag tattccagcc tagatttttt ttttttttga gacggagtct cactctgtcg 19380
cctaggctgg agtgcagtgg tgtgatctca gctcactgca acctccgcct cccgggttca 19440
agtgattctc ctgcctcagc ctcccaagta gctgggatta taggcgtgca ccaccatgcc 19500
aggctaattt tttgtatttt tagtagagac agggttttgc catgttggcc aggctagact 19560
tgaactcctg acctcaggta atcgcccgcc tcggcctcca gcctagaatt ttgagctgca 19620
gactggtgga ccctattgct tcacaattac aaaagctgga aaccctgggg gcatccttga 19680
ccctccctcc ttcctctcac cccatgtctg atctgtcagc agatcctgtt gttctacctt 19740
tggaatagct tctgggaccc acagccccca cctggtctct gctgctttac ttgtggaggt 19800
cctgcctgtc ctccagggct ctggctgggt catctcctcc agagggagcc ctccttctgt 19860
gctccgtagc ctgtgggctg tgggtgcctg tgctgtcttg acaagcattt gctcaagtaa 19920
actggtctcc ctagctcacc tgacttgacc agaacaagaa cctcacatac cagtgtgaac 19980
agaactggga gagaggtgtg taggaggcct ttcatatctt acctagatag cagtagcttc 20040
tcatctttca ccttttcttt cttttttttt ttttttttt ttttttttt ttgagacgga 20100
gtctcgccct gttgcccagg ctggagtgca gtggtgcgat ctcagctcac tgcaacctct 20160
gcctcctggg ttcaagtgat tctcctgcct cagcctccca agtagctgag atttcacttg 20220
cccaccacca cacctggcta attttttttgt ttgtttgttt taatattttt ggtagagatg 20280
gggtttcacc atgttggcca gactggtctc aaactcctga cctcaagtga cctgcctgcc 20340
tcagcctccc aaagtgctgg gatttcaggc aagagccacc acgcctggcc ctcgtttttt 20400
ctttttaaag aacaaagctc tggttatagt ccccatcacg ctgtatcacc gttactcctg 20460
cagatgtgtg aacctgcctg gctagaggtg gaatctatgg gagcactcag tcaccatctg 20520
gtgtgggagg gagggagaga agcatgaagg gacggggaag agtgtggaag gggaggggta 20580
aaggagaggg aatgggtggc cctcacctca cttttgtccc tctcagttac agctcagacc 20640
ctcccctagg tttcccaggt gtgccagggg aagccttgcc ctctggccag gcaaagccat 20700
tggaagtctg taaaggtcac acacagagaa acagcagcag tgctgatgat agcaacgtcc 20760
ccctccctcg tcccctgccc catgacaggt aggcagtcac agcccagccc cgaggaagga 20820
gcagtccccc ctctccctgc cacacaccat agatcttctg gatgccctgg agatcgtcct 20880
ggggcagctt gaagttgtgc gtctccatgt actggtagaa gggcgccatg atggcgctgg 20940
ggtcgctgga gtgctccagt cccagcgcgt ggcccagctc atgcacagcc accaggaaga 21000
ggtcgttccc 21010

<210> 2145
<211> 21024
<212> DNA
<213> Homo sapiens

<400> 2145
cggaagtgga aacggaaacc tttttaggga gtccaaggta cagtcgccgc gtgcggagct 60

09950082 - 081201

```
tgttactggt tacttggtaa gctggtgtga ggggaacctg ggagggtcag ctccggtcct   120
gggtcgggag gggtgggggc cagaggattc agggccggag gttctggtgg gggcccagtg   180
ggcgggaccc gaggacggag gggccgggag gccgagaggg gcggggtcgc ggcggggcct   240
gagggacgga ggccgggata cttgggaaag gatccgccgg ccttgaactc ccgcctccgc   300
cgcccctagg cctcatggcg gtccgagctt cgttcgagaa caactgtgag atcggctgct   360
ttgccaagct caccaacacc tactgtctgg tagcgatcgg aggctcagag aacttctaca   420
ggtgcggcgg gagccccggg gcttacggtg gcggggaggc gtgcgcagga gtcaagagct   480
ccggcagtgg gagggtgccg gcccctctgc cccgccacca ccgagtccat gtccctacag   540
tgtgttcgag ggcgagctct ccgataccat ccccgtggtg cacgcgtcta tcgccggctg   600
ccgcatcatc gggcgcatgt gtgtgggtaa ggcaggtgga ggacgccgag ggagggagtg   660
gtctccaagc accattaatt acacccccgg agggaacccg gagtgaccta gggattccca   720
gggtatcatc tgttatctct gggcactata gaatctctca ggccaagcgt caggagatcg   780
gggcaaccct ctagcaaagg ctgctggata atagtaataa caaataatgt aaagtgcttt   840
cactcctgtt ctcattcctt cgtcacaaag acactagaag gtaggagtta ctggcctaac   900
ttgactgatg aggaagttga gacttgacct aagtgactca gtaagttcca cacctagttc   960
ctagtgttgg agaaggattt ttctcttttt ttttttttt tgaggccaga tttttgctct  1020
ttcgcccagg ctggagtgca gtggcaagat cacagctgtc tgcatcctca acttcttagg  1080
ctcaagtgat cctcccacct cagcctacca ggtagctagg gccacaggca cgtgccacca  1140
cacctggcta atttttacat ttttggtaga gacgcggcct ccctgtgttg cccagcctgg  1200
ccttgatctc ctgggctcaa gtgatcttct taccttggtc tcttaaagtg ttgggattat  1260
aggcgagagc cactataccc agccgaggat ttgtatctca tctctccctg ccactgactg  1320
ggcaaggtgc tttctctttc taagcatcca tttctgtctc tgtaaagatt agctaagata  1380
tgcggtcttc ctgctcagtt acgttggaat cttaaattcc ctttaccaca tctctaccct  1440
accttcctac ctgtcagcac tgttaattct ggtcgttggt cctttccttt ttattattat  1500
tattattttt ttttgagatg gagttttcgc tcttgttgcc caggctggag tgcaatggca  1560
cgatcttggc tcactgcaac actctcttca agtgattctc ctgcctcagc ctcccaagta  1620
gctgggatta caggcgcatc ccgccacacc cggctaattt ttttgtattt ttagtagaga  1680
tggagtttca ccatgttggc caggctggtc ttgaactcct gacctcaggt gatcctccca  1740
cctcggcctc ccaaagtgct gggattacag gcgtgagcca ctgcgcccgg ccggtccttt  1800
cattaagctg gatctgtctt ccattactgc tgcccattgt ttcttagttc tgctcattga  1860
ggtcactttt agaagtctgt ttattttatt tttttacttt tactttaatt tttaaaaatc  1920
ttaagcctgc ttgggaggtc gaggcaggtg gatcacctga ggtcagcagt tcgagactaa  1980
cctgaccaac atggagaaac cccgtctcta ctaaaaatac agaaattagc cgggtgtggt  2040
ggcgcatacc tataatccca gctacttggg aggctgaggc gggagaattg cttgaaccct  2100
ggaggtggag ctcaccctgc ggtgagctga gattgtgcca ttgcatttca gcctgggcaa  2160
taagagtgaa actgtgtctc aaaaaaaaac aaaaaacaaa aaacaacaac aacaaaaact  2220
taagcctagt gacctcaaag tattttccta ttcagttaaa atactctgat ctctaaccat  2280
gcccttagga cttgaagcaa gttctgacaa caagggagat tttagcttag tccttgtgta  2340
ttttatgatg ggagtgacct ggaattcaga aattgattgg cgtgtatttg tagattgttc  2400
attcttgttg ctgtatggtg tgttttgtgt aagtatatca caacgtattc atccattcca  2460
tcgacagtgc atttgggcag ttttcacttt ggtctgttag gaatagtgct gctggccggg  2520
catggtggct cacgcctgta atcccagcac tctgggaggc cgaggcgggc ggatcacgag  2580
gtcgggagat cgagaccatc ctggttaaca cggtgaaacc ccgtgtctac taaaaataca  2640
aaaaaattag ccaggtgtgg tggcgggtgc ctgtagtccc agctacttgg gaggttgagg  2700
caggagaatg gtgtgaaccg gggaggtaga acttgcagtg agccgagatt gtgccactgc  2760
actccagcct gggcaacaga acaagactcc gtctcaaaaa aaaaaaaaaa agtaatagtg  2820
ctgctatgtt tttttagtga acacatgtac atatttctac tgggtatatg atacctaaga  2880
gtggcatggc agagtcacag gttatgtgac tatttagtag tagttgcaga tgatgccaga  2940
taattatcta aagtgattga ccaacttaca ctcctgtctc agtatgagag ttcagttgct  3000
ccatatatct ttgccaacac ttggaattga tgacttgtaa aaattttagt cattctggct  3060
gggggcagtg gctcacacct gtaatcgtag cactttggga ggtcgaggtg ggcggatcac  3120
ctgaggttag gagttcgaga ccagcctggc caacatagtg agaccccatc tctacaaaat  3180
cacaaaaagt tagccaggtg tggtggcacg cacttgtaat tccagctact caggaggccg  3240
aagcaggaga atcacctgaa cccaggatgc agaagttgca gtgagctgag atcgcaccac  3300
tgcgctccag cctgggtgac agagtgagac tctgccttaa aaaataataa tctagccatt  3360
ctgctatgtg tgtagtgtta gctcagtttt ttttgttttt ttgttttttt tttttggaga  3420
cggagtttcg ctctgtcacc caggttggag tgcagtggcg cgatctcggc tcactgcaag  3480
ctccgcctcc cgggttcacg ccattctcct gcctcagcct cccgagtagc tgggactaca  3540
ggcgcccgcc accacgcctg gctaattttt tgtattttta gtagagacgg ggtttcaccg  3600
tgttagccag gatgatctcg atctcgatct cctgaccttg tgatctgccc acctcagcct  3660
cccaaagtgc tgggattaca ggcgtgagcc aacacgcccg gcagctcagt ttttaagtag  3720
```

caaaatatac agctaatgcc aagagctcag cttccctccc agttggtgat ggtgaagtag 3780
gcaggattta ttgggattcc tgggtggtct ctggcctgcc ctgggtgttt tccagatcag 3840
tgggttggag ggctgggctc tgggcctaaa gctttcctgg gaaagctgat tgggctgggc 3900
tgagtggtat cctcagcccc tagggctcag caggcatctt gtgtattcac cctctaattt 3960
gggtttctcc agggaacagg cacggtctcc tggtacccaa caataccacc gaccaggagc 4020
tgcaacacat tcgcaacagc ctcccagaca cagtgcagat taggcgggtg gaggagcggc 4080
tctcagcctt gggcaatgtc accacctgca atgactacgt ggccttggtc cacccagact 4140
tggacagggt gaggcagccc aacttgaccc aagagtcaca gggccatcct agtcagtggt 4200
tagccactgt tctttcccaa caggcagcaa ttaggggtct ctcctgtggt ttttctatat 4260
gggctcttga gtttcaggta ctcattggaa tagtgataac agaggcctta tcaagtgtca 4320
gaaagaagct ggggagggta tgaatccttc atgattgggg agattgaacc atccagtcct 4380
gcatcctggg ccaggatagg tgattgactg ttgaactttt gactgtgggt gagaggggaa 4440
agaagtgata ttgagaccag cctccagctg ttcagggcat gcatgaatat taggggcttc 4500
acagctgccc ttgactctgc tctaagctgt acttcctcct ttctctgggt gaggctttca 4560
tatgaggtac agaggagaaa tgaggggctc agggagccaa ggcctggatg cttctgggca 4620
tggagaacct tggttctggg gctgtaagtt ctgagccctg aacacaatat ctttgattga 4680
caggagacag aagaaattct ggcagatgtg ctcaaggtgg aagtcttcag acagacagtg 4740
gccgaccagg tgctagtagg aagctactgt gtcttcagca atcagggagg gctggtgcat 4800
cccaagactt caattgaaga ccaggatgag ctgtcctctc ttcttcaagt ccccccttgtg 4860
gtaagcattc ctgtcctctg aaccccgtct cccgaggcag atcctttcgc ctagtgtttg 4920
ggagtctggg tcattacctg ccacagtttg ggactggggc tgcaggtcag ggaggagcag 4980
ggtttgggga gagtcttcat tgaggaggga gagaatttgg tgccgtgact cacattgagc 5040
ccatcccttg gcaggcgggg actgtgaacc gaggcagtga ggtgattgct gctgggatgg 5100
tggtgaatga ctggtgtgcc ttctgtggcc tggacacaac cagcacagag ctgtcagtgg 5160
tggagagtgt cttcaagctg aatgaagccc agcctagcac cattgccacc agcatgcggg 5220
attccctcat tgacaggtac ctggggcctc tcctttcttc tgctcagggt tgggggttaa 5280
cttgcatttt gagagtatgg ggaaaagatg tcatctagaa tgggagccta ccagtttgtt 5340
ctggtagctt ctcgagtgtg agagcatatc tgtacactgc tgagcagata agagccagca 5400
tattcaaaaa atatttcttg agcatctgct aatcctcatc tttgtggttt ttcagggcta 5460
ggatactaga gcagtagctg cttgagcagc ttgtcagagc tggtcccggg atgagggctg 5520
aggcaggcac ctcacttgag agtgaggtgg gctctgtgaa acagctactg accgtgcgct 5580
ttcctttctc ttcagcctca cctgagtcac cttccaagtt gttccatggg ctcctggctc 5640
tggactgtgg ccaaccttct ccacattccg cccaatctgt accggatgct ggcagggagg 5700
tggcagagag ctcactggga ctgaggggct gggcacccaa ccctttcca cctgtgctta 5760
tcgcctggat ctatcattac tgcaaaaacc tgctctgttg tgctggctgg caggccctgt 5820
ggctgctggc tgagggttct gctgtcctgt gccaccccat taaagtgcag ttccctccgg 5880
gccattctga atgtgatgtt tggggccctc agcctgtgta caatccctgc actctccagt 5940
tgttccagca ttctgggaag atagggtggg atgaacacaa cacacaccca acccagttca 6000
ccacctccac acacgccatt cccttctcct ctaccatcag gatgtgaggc ttcatcctgg 6060
ggcaagaaac actctccact acagttctcc ttttttcttt tttcttttg aggcagtgtc 6120
tccctctgtc acccaggctg gagtgttgtg acgcaaggat ggctcactgt agccttgacc 6180
tgttgggctc aagcgatcct ctcgcctcgt ttatttttt gtagaaacga agtcactgtg 6240
ttgcccaggc tggtttatac tcctgaactc aagcgaccca ccgcctcggc ctcccaaagt 6300
gttgggatta caggcgtgag ccacggcgcc cggtctagtt ctcacagttt tcacccgact 6360
tctgcgccgg tcttctctgg ccttgaaagg cagagagtcc gttccgattt tcccctgagc 6420
tgggcaagtc ccctgtgaga gctctggggc atctggcttc ggggcattct ttgactaagg 6480
tggatggagg ttgcaggtct tttcctgggt gggcgtgggg cggggcagcg ggttcccagc 6540
gtcctcctgg cctgggcgtc ttggaggctg ttggggtgca ttccgtcccc ttgcgcgggg 6600
cggggccttg aggcgctggg gcgggattgg cgggggacgg tcgcggagcc ccgccccgaa 6660
gcacagggtc gagtcccttc tttccgctcc aacgcacgga gggtgaggtt ggtacgcggt 6720
ggtggcgtca cggcgccagc tcctcccgac gccgaggtgg gttccgggag acccgcgggt 6780
ctggctgcga gaggtgaggg cagagccggg gcggggccct agcggggtgt cccggcgacc 6840
cagaccttaa agggcttctc ttcttgcaga ccatgggggc tcagctaagc ggcggccgcg 6900
gcgccccgga gcctgcgcaa acccagcccc agccccagcc ccagcctgcg gcgccggagg 6960
gcccggaaca gccccggcat ccgccccagc cccagcccca gccccagccc cagccccagc 7020
cccagcccag cccgagccca gcccgtgggg gccgctggac gacgtgcgct tcctcatcgc 7080
ctgcacttcc tggtactgac ggcgtcctcc gcaggatgtc gcccgtctgt ccgccgtccc 7140
ctgtggttct tgcctgcctt gtctcctctc cccacgtccc tgcgtctctt acacccccctc 7200
ccacccgagg ctccccagag atagcagaga attcgaagag gtcgccgggg actggaaaga 7260
agtcccggca gggccgcctt cgcagtctac accccagcct gcttcccagc ctacacccag 7320
acccagctca gaccttcgtg accaccccat ccctttctcc ggctggctgg gtcgggggca 7380

tccctctctg tcgctggctt ccagaggcag gacaggcctc ctggtaagcc cgcaaagttg 7440
ctgacctcct gacttcgtct gccttttatt aatatctgta ttgctgataa ccgtgctctt 7500
gactatgtgt cccaggtcat gtcccaggtc atggagaagc ccgtgccaca gtgaccctcc 7560
ccatactcct gggggggctg ctctccatcc tggatcgtaa ggaggcatca tcaggctgtg 7620
ttcctggaac cccaataacc ctgggccccc agggccagcc tgttgtagag ggaggctatc 7680
tgaccgccgg tctggcagag gagatgggtg ggcagctccc agacacccca aaggacccgg 7740
ttctcttccc agagcgtcct aaggttactc ttggaacctg atctttgttc cctcatccca 7800
gggaaatgac acactctgta tttctgtttt atttagaaat gatttaaaaa acattataca 7860
aaggctgatc agtttaaaat gtgactgaca ctgaaatgct gtgatgtccc ccaggctgag 7920
gggaagctag gctctggggc ccccagtgct ttgcccctct gtctgccctg tcctggggtg 7980
atggacaaac agatgaccac aggcaggaga atctgagatt ggaagcctct aggctgagcc 8040
ctctgggcct ggccccacat ccctcacctc tgcagcctgg gctgcctgcc tccatctcct 8100
gttcattctc agctggcctg ccaggagcca atggggagcc tggcgggagg cgggggtgcc 8160
tagagctttc aagaagtgag agcaccaacc tgaggagtgg acagggacca ggaagtgggg 8220
gaagggaggc caggaagagg tggatacagg agacacttct catctcatct cagaccctag 8280
aggggtccac agatggggac acaagaccca gccagcccac tggatggccc gggcaagtaa 8340
caacctctct gtgcttcatc tgagggcacg gtgagagtta ccgtcggcct cccagggcct 8400
aacacgagtt tcatgtgagt ggacaggtgt gagctaataa agtgctttgc aaagtataaa 8460
acactgtaca aacctatgaa tcactaatat ctccgcagtt gttccctgcc tgtcccaggg 8520
agcctgccct tggccaaaat gagaaaaaac aaggatgatg acaggggaca cagcggaccc 8580
acatgggcac ctctgggaca agagattttg cttgagacag ctcccagggc agcaggagtc 8640
cctgtctgtg ctacagggta agccgacccc aatcccagag accacagggt cgggggcaag 8700
gcccatgcag gctcagtgag caggggtggc atccgagacc cggccagcac gctggagact 8760
gcctgacacc tttttggctt tggcagagag ccagtgggca ttgatgaacc cattggcctt 8820
gtctagggct cctcagtgac aagcagggct gcctccgccg tactgtggag caaggcaggc 8880
caagccctag gaactcctgc tggagacagt gaagggcggg ccagtgaagg tcaaaaaggg 8940
agccccctca gcttggggct gctaccggta ggggtgtcct tctaagagca gtgtgggaag 9000
atgggcccag tgagcgaggt cagcaagggc caagctctgg gaaaacactg cttccagccg 9060
agagattgag tcggcctcag agtagctgga gtcggcctca gagtagtggg ggcactgagc 9120
acttcagacg ccctggtccc cttccgaagg actcccaggc tctgccagtg ttggccctgc 9180
agccatctct gcctcaccta actggtgagg ctgagctcca ggctgcaagt gacagactgg 9240
agcaaagctg gggacagtga caatagaggg gagtggagga cggtcacaaa ctcggatctt 9300
cctccagaaa tggggtcagc ttctgcccca gctctgtagc cataggagca gagctcagct 9360
actggggtgt ctgggcgcta gagtggcctt agcagcacct tggtccttgt cgcctggggg 9420
agggccgcta tgctggcctc atcaccaaga cagtcacctc tagttcacct aaagcctcaa 9480
gcagcctttg caaaatggga cagtagtgac aggacattta aatattcacg atgtgacagc 9540
tgggtccttg tcagacccag ctgggccaca gccctgcctg cagcatgtga ccctaaatcc 9600
tgggtctccg aagagaccct gacaagtgga gcaggtttcc tgagggatct gccgtctgcc 9660
agcagggaaa cccaggcttg ttgctcactg tgtcagaagc aggggtcctg tagccttgga 9720
ggacagtggg gtgggggtag ggggacatct gaccagcagg tgttggcaaa aggggaccag 9780
gactggtggt atctcccgga tgggggatga gagctagtgc tggcttccca cagagggtgc 9840
tgggttccag ccaggagtgg agctgtggta cctcatggac accacaggat gccgtgacca 9900
caggggctcc tcctggcatg gtccctgcct ccggatggag cctggcctat tcccttaagt 9960
agggagtagt ttgcccagga cagaaggctg gcagctgggt gccagacacc caccctgggg 10020
cacagccccc ataattccct gccccacgct cagcctaggc caatgcaccc accacttcag 10080
ctgtacgacc ccagcctagg gccctgctgg ccctggtgag cactggccag agctgcccct 10140
cagaccctgg tgaggaaggg cctggctggc cagaccaagt ggatagagag ggctctgggc 10200
tgctcacacc cattcctgga ctggccgctt atagtaggtg acaggctgag ggcctgtctt 10260
gttcttgaac tggaagatgg tgtagaccag caccaggatg cagagggaca ggatgcaggg 10320
gatgaccacg gccacggcgt tcacggagcc cggcacatcg ttgatggtca ccatgatgtc 10380
cacgtcgtcc tggggcagcc gccgctcctt ccgccgctcc acctccttct ggttgcagcc 10440
catccagtca cgcaggatgt tgcgcgggta gcctggctcc acgctcagtt tctggttgtc 10500
aaacttccag tagtcccggc ccttgtagaa ataggtgtaa tctgcagaaa tacagcccag 10560
catcaccact cccagacact tccggcacct gctctggggc agtgtgaaaa ggagggcaca 10620
ggcactgtgg caagggaggc aaggtgggca cacctggagg tttggggtgc agtgcttggc 10680
tgagtcatgg agtaagaagc tgcagagggg gacacccggg acctggagtg gtccgcctgt 10740
catcctacgg gtgctaggaa accagagggg cttcagggag aactgggaca tggttcactt 10800
tgtgctgccc agacaggacc ccttgcacgc aagcctgggt cacagctctg tcacactgtg 10860
cgcacaggtc ccccttgccc cgctcatgtg ggctccatta agcctcagcc tggctcctgc 10920
ttgagccaag ggaggcaggg agcaagattt caccttgtgt tgacagcaag acctctctgc 10980
aattatggat ttttttggct tggcacacat cacttcacaa cacagatgca ggacctttgg 11040

09500082 - 093004

```
gagccttctg ggagagaggc tgggcagccc tgccaatcac tccctgggca accaccccag  11100
ggctcgagca acagcctgag cggcccagcc agtgggcaaa gcagcttgct taggccgtcc  11160
tcattggctg gcttcccacc gtggctaggg ctttcattgg tctcggtcct tgatgtcacc  11220
tgtctctgag gctccccaaa aagggagatc ttgtgcgtaa agcatcaggt atacaagaca  11280
gccaacaaat agcagctgtg gccattggct ttctcagcag tgaagcctcc tcagagactc  11340
cttcccagcc atctctaaca cggccccctc tagctcgttg ctctctccca gcatttattt  11400
ccttttttt ttttttaag acaaggtctc actccattgc ctaggctgga gtacagtggt  11460
gcagttgtaa ctcactgcag cctcaaactc ctggtcttaa gcaatcctct ggcctcagcc  11520
tcccaagtag ctgggactac aggcacatgt caccacgccc agctaatttt tgtatttttt  11580
ttttgtagag atggaatctc actatgttac tcaggctggt ctcgaactcc tggcctcaag  11640
tgatcctccc acctcagcct cccaaagtgc tgggagtctt tcccttatag cgtctgttgc  11700
catcttgctt tatgccccta gacttggacg tctgcaagtc ctgttgactg ctacgtcccc  11760
agctcccacc acacaagctg tctattatta tggagtgagt gaatgaatcc tgtcaatcca  11820
cataaactga aacccatgat gatgacaatg atgatgacga tagcagctaa aatatacagc  11880
atggatggtg tgctaggcat tatttctaag tatgctacat aatttgtctt ctttaatcct  11940
cacaaaacca ttatataaag gtaggtactg ttattatcat tttataaatg agaaaacaga  12000
aaacttatta aagatttgct cagattcata gtgagtggta ctatggtggt tacgaaccca  12060
gccagtccag ctctagagtc tgtgtttttg accatatcaa tggagatcta tttaacaaac  12120
actcctggag gcccactctg catctggcca ggctagcagc tcctcctgag aagctcctag  12180
gctggtgggg agacaggctg agtgtctgat ggcagtcgtg ggggctggtg gccagcatgg  12240
cttctaggag gagttcagga aacataaaaa gtttctctct tgatgcagtg gctcacactt  12300
gtaatcccag ggctttggga ggctgaggtg ggaggattgc ttgaggccag gagtttgaga  12360
ccagcctggc caacatagtg aaaccctgtt gctacaaaaa aatgtaaatt agccaggcac  12420
agtggcatgt gcctataatc ccaactactc gggaggctga tgaggcagga ggatcatttg  12480
agactaggag gttgaggctg cagtgagcta tgatcatgcc acagcattcc agcctaggcg  12540
acagagtgag accttatctc ttagaattta aaaaaaaatt ttttttgaag gttttctttc  12600
catcttcttg ccctcgagcc ctgtgaaaaa gtggctttga aacatgcatg cccatcattg  12660
cttttcagat tgggtaactc aaggcgtccc tggagtacac tgaggataag tgtttgagaa  12720
atgctgtctg aaggaatgaa gtcagtctat gacaacgtct ctctgccgtg aatcattcct  12780
gcagatgaaa aagtgtgact tggcagctgg taagtgaatt aatggaccac gtgaacatgg  12840
gtagatatga ggcagttgtc tgccaccagg tgtttttttca aacctggacg cccatgggca  12900
ctgagtatgc ccgtgggcac tggtgaggac cacataaaac cggctcccca tgcccaccct  12960
ggcccggccc ttacgtacat ccttccttgc tgatgaaggc tccttgggga gcctgtggga  13020
tgcccttcca cacggtgatg ggcttagggt agccagggtc cgtggcccgc cgctcctcgc  13080
tgtagcgcca gtaccgctcg cctttgaaaa agtaggtctt gcccacaggt tcccagcgca  13140
gagctgtgtc aatgccttca cggggcaaac agctgcccag ctcccccagg ctgtgggggt  13200
acccaggctc caccgtcacc tccttaaaca cccaatactt gtcacctgtg gccaagagga  13260
gcccaggatc agcttcccca gtcactcagt gccgtttgcc catcttcagg gtgtcaggtg  13320
aaaacagtct gatgccctca gcccccttggc ccagttagag ttgggaaggg cacgaagcct  13380
gaggccagtc acagatcctg gacaacttgc ctctgctgcc tgggctccga gtcccaccct  13440
cttttgttca tgtgacttgc tcctctctcc tctctggtga tctcagccac ttacatgact  13500
ttgcatatgc actaccactc cccaaacctg ctaccagtga cacccgactc tgaggctctc  13560
ccactggacc tgagcagcag agccagaaac cctgacctcc ctcggcctac cggcagctct  13620
gcattggctg gctccccaga gctcctcatc tgcaccacag aggggctccc tcctcatcac  13680
cttctgcctc ccaggtcccc aacagggagt cctagcctca ctgttgaccc tctctttcct  13740
tctcctctca gtattcagcc acttcttttt tttaagatgg agtttggctc ttgttgccca  13800
ggctggagtg caatggtgtg atctcagctc accacaacct ccacttcctg ggttcaagcg  13860
attctcctgc ctcagcctcc tgagtagcta ggattacagg cacgtgccac catgcttggc  13920
tagtttttgt aattttagta gagacgtggt ttcaccatgt tggtcaggct ggtctcaaac  13980
tcctgacctc aggtgatctg ccagccttgg cctcccaaag tgctgggatt tcgggcgtga  14040
gccactgcgc ctggccgagt attcagccac ttctgaggcc ctctgactct cctggcagct  14100
gtcccctgcc cttcagctgc acggctcctc cctcatttgg gcctcatgag tggcgcgctc  14160
cagaaccacc tcagaaatgg ctgccctgcc cctgccatgt ctgtcacctc ctgccctctg  14220
gctctctgct gctcggaaac attccatgaa tttccagcct tggcctaatg gatcaagacc  14280
acattctggc ctggcagcca gggctcttca ggatttgcct ccaaatgacc tttctgggcc  14340
atttctcaca gctttccaag gcggggcctc cgtggccatc aggtgggcct tctaagccct  14400
gtggccgtcc gtacacatcc cagccctgct cctttattca gccgttgtcc ctctggaatg  14460
ccttccttgc ttctcactat ctgtatctca cccatctgag gtctggcccg agtcaagata  14520
actgtcatga aacaacctag cacagtgctg ggtacagggt gggcacctta gctccctccc  14580
acaccctccc ccgacctccc cagcttgagt gacctcttcc ctctgggttc ttacagaact  14640
gacccgatgg cctcccatga ggtactgggt ggtcttcaat tgcttgtccc acactctact  14700
```

09509082 - 050702

09509809 - 091201

```
tcatgtggac gaagctggtc accccaccaa tctcggcaca tacagattct cagtctcact  14760
ttctgacttg atttgtcaga ggtcagtgtc tccgttagac tagaggggcc ctctgaggac  14820
atctgcctcc caccccgcct cttccagttt agatgggaaa aaggaggtcc caagaccttg  14880
ggcagggaac tgtcccacag cacagtctac attacctttg aagaagacaa atctcccatc  14940
ggccctttca taggctgcgt cgatgcgggc aggcaggccc ttccagaact gctcgatctg  15000
catggggtag ccctcctgca ctcggttatt gcgcagacgc cagaaccagc gatcctggga  15060
ggaagcggga gagggggaga gaggtgtgtc aggccctgcc tccgaaccca gtgattgcag  15120
ctgtggggct taggtcccaa cagcccagcc ctccaccgag actgtccatt agctgcttct  15180
gacttttaaa gccctgggag gaagacagga tgctcctgta actgtcttca attcagcctc  15240
ctgctgactc ttgctgctgg gtggacaatg agacaaacag cagacaggcc tggtgtggaa  15300
aaggaggtgt gagggagccg gaaaggatga tgttggggcc tggagtggcc acatgggggc  15360
agtggagcgt cactaacatc agccagactg gtcctcggga cagtgggagg ctggggtggt  15420
cactgagcct gggccgagcg ccctccatga ggctggctcc atccagcagg gccaggatca  15480
tggaagccaa gtcatgggaa ttccctcgag acctgggcat gaattcacat tcctccattt  15540
atagctgcat gacctaggcc tcacctgcaa gtgcaggtaa taatggagaa tcagatgaga  15600
gattctaggc aaaatgccca gaccagtacg gggcacacag tccatgttga gtaaatggca  15660
gctaaatagt ccgagtccag taaaaacgcc tcttgtaact ggtgcctcag tcttgggctg  15720
gtacacaagc agtctaggca aggcctgtag cctccaggcc tcagttttct ttctttttt  15780
ttttttttag atggagtctc gctctgtcac ccaggctgga gtgcagtggc gcaatctcgg  15840
ctcactgcaa gctccgcctc ccaggttcat gctattctcc tgcctcagcc tcctgagtag  15900
ctgggactac aggcgcccgc caccacaccc ggctaatttt ttatattttt agtagagatg  15960
gggtttcacc atgttagcca ggatggtctt gatctcctga ccttatgatc cgccctcctt  16020
ggcctcccaa agtgttggga ttgcaaggcg tgagccactg cgcccagcct ccaggcctca  16080
gttttcttat gtgtaaatgg ggatgataaa acccggacct gcctatgaac ggttcagttg  16140
gatcaaagta gaatgagtgc agaagaagaa gcatgatttg taaaagatgg tacaaaagct  16200
agtattttaa aaggtgtttt acaaagcact ttcacatcca ggtttttgac cttattttga  16260
ctttcatgtc tctgttaagt tgatctgaga tatacggagt cttaagaaag gccaggtgac  16320
ttgcctagag ccactcagtg agaagccaga ctggggctga ctcacgctgc ccgattcctg  16380
cgcagtgctc agtgcgtgct gggagaactc cacaagggga gcgaggcagc ctctttcacc  16440
atcctgtgtg atggagccac cctgcccaga tccccttcag agaagggctt gttgccccag  16500
tggccagcag tgtggccagc aggcagtttt caactgtcag ccccttgggg gatgttccct  16560
gcttcagaga gctctcctca gtcactggat gcccttcctc atccagtgat tgaatgaggt  16620
aggggttata atgttccaga tattttggac ccaacgtagg ctgagtgaca ggccaccgta  16680
gccccagagc tccctgcggg ggtggctgag gctgccatgg gcctctgttg ccacttaacc  16740
tctccctctt ccctgtcctg cttccttctc cccctcacaa atgttgattc tgaaagtact  16800
ctctaatcga aatcctgcat tccagacccc acctcagagt tcactccccg agagcccaac  16860
ctgcaacacg tcaagcagac tgccaccctg tcagtccatg gctgatggag gacagatgac  16920
aagatatacc ctgggctgct gccagtagca gcccctcaag ccttggtagg gtctggagtc  16980
agactcagcc gccactgacc tagcccctac tccaagttga ccatcttcag agccgggtac  17040
tcactggatc ttcacacact ctttgttaga ggaatgactc ccccaggttt cggatggaga  17100
aactgaggtc ccaagaaggg tggtcacaga ccagaagcca gcttccagca ctttctccca  17160
gcgttaaccc caggggaggt gagggatcac ccatctttcc ccctccctct tgggaacagt  17220
tgattcaccc agcagcacta ggaagagacc ccatgccctg gccactgggc tagctcctgt  17280
ccaggcccca ttgtaatcga atcccaaatc aggagccttc cccagctcca tgatgtcggg  17340
gaggaggagg aaaggtcagg ggccagctgg gtggtgccaa tccattggcc ctaccttaaa  17400
gacaaacatc tcgccccgga agagggccac tgtgttgaag ttgccgtcac agatgttggg  17460
tttggtgcct ggtgtggatg gccggtcccc gaggggcggc cgagggggcc tgggctggcg  17520
ctcgtgtttc ctctccgatg gtgagtggat cctgcggacg gggagtgtag ggagtggcct  17580
tgtgggctcc agaggctcgg ctgggggtcc tggagagagg agctgcatct tagagagggg  17640
gcagccgttt cccgcctccc attgccagtc tcagcatcac ccaggcagct ctgagacaag  17700
tctgtcccag ttcagcctcc tgttccctct ccccagttta actcccccag tctttgagaa  17760
aatggatgaa aatagccatt agaatgggac tctcatcttt ccatccccga atctggtatc  17820
ttctcttttc tctctcctgt tacagagcaa tcatgtcctt ccttagggtc agcgctcttc  17880
cttaggccat accctctttg ccccccttcac acgcactggc cccacttcct caccccccttc  17940
atttattctc tttcccaccc cagtgcagct tctacccgtc acccactcca actgctctgc  18000
caagatcatc caatggttac ttgactcaga ctttaataag cacatgcatc atctggggat  18060
gttgctaaaa tgcagatgag ggctcagagg gcctggggtg gggcctgaga gtttgcattc  18120
cttcacactc tcaggtgatg ctgatgctgc tggtctgaag actacatttt gagcagcaag  18180
attcatagaa acactttcct ggaaacactc tcttggttgt cctcctgcct catgggctgt  18240
tctttctcag tctcctttgc tggctgcgtg tcctcatctg ccctactcta gaggctggcg  18300
tgcccttggg tcctcttctc ttccgtctct acattttcat ccttaggtca gtgcttcttc  18360
```

09512014 - 09512014

acttgggctg catattagga tcacctttgg gagcttttca aactggatgt tcaggaagca 18420
ccaggccagc tctccaactt ttttttttt ttttttttt ttgagaagga gtctcgctcc 18480
gtcccccatg ctggagtgca gtggcgtgat ctaagctcac tgcaacctct gcctcccagg 18540
ttcaagtgat tctcctgcct catcctccca agtagctggg actacaggca cgtaccacca 18600
cacccaggtg attttttttt ttttttttt ttttttttt agcagagatg gggtttcacc 18660
atgttgacca ggctggtctt gaactcctga cctcaagtga tccacccacc ttggcctccc 18720
aaagtgctgg gattacaggc gtgagccacc acgcccaata cccaactatt aataaaacca 18780
aatctctaga gctgagggct gggtgtctgt gttttttat tagaatccca aggtaattcc 18840
aaagggcagc caagttgaga atcactgctc taggtggtct catccaggct catggcttta 18900
cagacctgca tcagagctgt ccagtagagt gttctgtgat gatggaaatg gtccatatct 18960
gcatcgttca ctacagtagc ccctagccac agccacatat ggctactgag gtcttaagat 19020
gaatgactag ttcttagtgt gactgagacc cactaaagaa ctataactga aatgataatt 19080
ttaatatatt tttgggggggg tagagacagg ggtctcactt tgttgcccag gctggtcttg 19140
aactcctggc ctcaagcaat cctcccacct cggcctccca aagcgctagg attacaggtt 19200
tgagccaccg cgcccggcct aataaatata aatttaaatt tcattactat gaaatttaat 19260
actagtttat ttaatagtag tttatttaat acatactagt gtatgactag tggttactgt 19320
attgaacaac aaagatccca aataagtatt ccagcctaga ttttttttt ttttgagacg 19380
gagtctcact ctgtcgccta ggctggagtg cagtggtgtg atctcagctc actgcaacct 19440
ccgcctcccg ggttcaagtg attctcctgc ctcagcctcc caagtagctg ggattatagg 19500
cgtgcaccac catgccaggc taatttttg tatttttagt agagacaggg ttttgccatg 19560
ttggccaggc tagacttgaa ctcctgacct caggtaatcg cccgcctcgg cctccagcct 19620
agaattttga gctgcagact ggtggaccct attgcttcac aattacaaaa gctggaaacc 19680
ctgggggcat ccttgaccct ccctccttcc tctcacccca tgtctgatct gtcagcagat 19740
cctgttgttc tacctttgga atagcttctg ggacccacag cccccacctg gtctctgctg 19800
ctttacttgt ggaggtcctg cctgtcctcc agggctctgg ctgggtcatc tcctccagag 19860
ggagccctcc ttctgtgctc cgtagcctgt gggctgtggg tgcctgtgct gtcttgacaa 19920
gcatttgctc aagtaaactg gtctccctag ctcacctgac ttgaccagaa caagaacctc 19980
acataccagt gtgaacagaa ctgggagaga ggtgtgtagg aggcctttca tatcttacct 20040
agatagcagt agcttctcat ctttcacctt ttctttcttt ttttttttt ttttttttt 20100
ttttttgaga cggagtctcg ccctgttgcc caggctggag tgcagtggtg cgatctcagc 20160
tcactgcaac ctctgcctcc tgggttcaag tgattctcct gcctcagcct cccaagtagc 20220
tgagatttca cttgcccacc accacacctg gctaattttt ttgtttgttt gttttaatat 20280
ttttggtaga gatggggttt caccatgttg gccagactgg tctcaaactc ctgacctcaa 20340
gtgacctgcc tgcctcagcc tcccaaagtg ctgggatttc aggcaagagc caccacgcct 20400
ggccctcgtt ttttcttttt aaagaacaaa gctctggtta tagtccccat cacgctgtat 20460
caccgttact cctgcagatg tgtgaacctg cctggctaga ggtggaatct atgggagcac 20520
tcagtcacca tctggtgtgg gagggaggga gagaagcatg aagggacggg gaagagtgtg 20580
gaaggggagg ggtaaaggag agggaatggg tggccctcac ctcacttttg tccctctcag 20640
ttacagctca gaccctcccc taggtttccc aggtgtgcca ggggaagcct tgccctctgg 20700
ccaggcaaag ccattggaag tctgtaaagg tcacacacag agaaacagca gcagtgctga 20760
tgatagcaac gtccccctcc ctcgtccccc gccccatgac aggtaggcag tcacagccca 20820
gccccgagga aggagcagtc ccccctctcc ctgccacaca ccatagatct tctggatgcc 20880
ctggagatcg tcctggggca gcttgaagtt gtgcgtctcc atgtactggt agaagggcgc 20940
catgatggcg ctggggtcgc tggagtgctc cagtcccagc gcgtggccca gctcatgcac 21000
agccaccagg aagaggtcgt tccc 21024

<210> 2146
<211> 437
<212> DNA
<213> Homo sapiens

<400> 2146
ggctctgggt gctttaagaa tgtctgggag ggtcgagcag ggattctgag gagagagggg 60
tcatttaaac ctggaggaag atgttcaggg aaagcttcac aaaggtgaag ttgaagctca 120
gtcttgaagg atcagaagtt agtcaggaga acggattcag ggggcaggag aggaagggtg 180
ggggtggcat tcctggcgga tggaatgcaa taaacacagt ccagagacag gcagtttcat 240
tccacctggc tctggaacaa agcaggaggg gagggccgga gagagatgag gtcagccagg 300
ctggaaagca gggcgcttaa tgccatacaa aggaatttgg atcagcttct tggctagtgg 360
ggggtttaag taggagtggg ggtggtgata caattaaatc actctggctg cagttgaggg 420
aggattagag ggaacaa 437

<210> 2147
<211> 854
<212> DNA
<213> Homo sapiens

<400> 2147
ccaggccctg aaggatgggg aggttttgga cagagggagg agagagttag aaaaattttt 60
ggtagagaga atcaggtgaa agagatgccc taaagaggac tgagtgggtc tgaggtgaat 120
gagtgaggaa gagcagagta tgtggatacc cggaaacaca cacacacaca catcatcatt 180
atcatcatca tcattgtcgt cgtcatcatc ttgctgagtc atcatcatca tcatcatcat 240
tgtcgtcgtc atcatcttgc tgagtgtctc ttgaagtaca ggctgtgaca ggttgtgggc 300
cattttcctg aactcaccac ttacccggga tagtaaacat gatacacatc aataaaggca 360
gactttattg tgaatcacag cgcctggtgt atcctgaact ttgaggagtt atgggaggga 420
cacgttgggg gaatgggaag ggcaccattc aggccaatta tggggaaacc cctggaggag 480
ggtgaatgcc gaaggaggaa ttgggggagt ccaggggctc caagttacca ctgtgacatt 540
ttgagagaac ccggggcttt tgcagattct acaaaatgtg ggccaagttc atcctgtcca 600
agtgtgcagc agggcccttg gcccccatca ctatcctggg gacagaagtt ggctgctgag 660
tgagtgatag aggccgtgcg agaggcacat cgtggaagcc aaccagcacc cacatccttg 720
cccaccctgg acccctttcc agccttttcc tgagccctg cttcctcagt cctcccctct 780
ctccagcacc tgcagcctgg ctgcctttcc gtctctggct gcgctctttc tccagcctcg 840
gtctggccgc actt 854

<210> 2148
<211> 437
<212> DNA
<213> Homo sapiens

<400> 2148
ggctctgggt gctttaagaa tgtctgggag ggtcgagcag ggattctgag gagagagggg 60
tcatttaaac ctggaggaag atgttcaggg aaagcttcac aaaggtgaag ttgaagctca 120
gtcttgaagg atcagaagtt agtcaggaga acggattcag ggggcaggag aggaagggtg 180
ggggtggcat tcctggcgga tggaatgcaa taaacacagt ccagagacag gcagtttcat 240
tccacctggc tctggaacaa agcaggaggg gagggccgga gagagatgag gtcagccagg 300
ctggaaagca gggcgcttaa tgccatacaa aggaatttgg atcagcttct tggctagtgg 360
ggggtttaag taggagtggg ggtggtgata caattaaatc actctggctg cagttgaggg 420
aggattagag ggaacaa 437

<210> 2149
<211> 854
<212> DNA
<213> Homo sapiens

<400> 2149
ccaggccctg aaggatgggg aggttttgga cagagggagg agagagttag aaaaattttt 60
ggtagagaga atcaggtgaa agagatgccc taaagaggac tgagtgggtc tgaggtgaat 120
gagtgaggaa gagcagagta tgtggatacc cggaaacaca cacacacaca catcatcatt 180
atcatcatca tcattgtcgt cgtcatcatc ttgctgagtc atcatcatca tcatcatcat 240
tgtcgtcgtc atcatcttgc tgagtgtctc ttgaagtaca ggctgtgaca ggttgtgggc 300
cattttcctg aactcaccac ttacccggga tagtaaacat gatacacatc aataaaggca 360
gactttattg tgaatcacag cgcctggtgt atcctgaact ttgaggagtt atgggaggga 420
cacgttgggg gaatgggaag ggcaccattc aggccaatta tggggaaacc cctggaggag 480
ggtgaatgcc gaaggaggaa ttgggggagt ccaggggctc caagttacca ctgtgacatt 540
ttgagagaac ccggggcttt tgcagattct acaaaatgtg ggccaagttc atcctgtcca 600
agtgtgcagc agggcccttg gcccccatca ctatcctggg gacagaagtt ggctgctgag 660
tgagtgatag aggccgtgcg agaggcacat cgtggaagcc aaccagcacc cacatccttg 720
cccaccctgg acccctttcc agccttttcc tgagccctg cttcctcagt cctcccctct 780
ctccagcacc tgcagcctgg ctgcctttcc gtctctggct gcgctctttc tccagcctcg 840

gtctggccgc actt 854

<210> 2150
<211> 670
<212> DNA
<213> Homo sapiens

<400> 2150
tcggcacagt gacagaggca cccagggctc agcaagctca tggcccagct tgttggactc 60
agagggcaga agaatcacat tctaaacatg ataaggtata gccagcagga ggcagattcc 120
cagattgatt ctccagagcc ttgtaggtcc caagggtgcc tatgacacca atgggaatct 180
gaaccaacac agacagcaca gtcttcttag gagaccctag tgcagcagcg ctggcctcct 240
cctgagcgtg cacgcttata tggcttctga gctggccagg ctacttcatg catttggttt 300
aatgggtcct cgtaaggcag gagaatcttc ttgaacttgg agttgggtct gtggtccatt 360
ggtcagtact ttgttcagag gcactgaggg tgggaaggct catggagctg gattctgctg 420
ctgggaagct gggtgggcct tgtttgtggg cctcaggttc aggactgaat gagagtcctc 480
ttgttgcgag ttgagggtgt actctgggca tgccatgccc ttttttttgta ctaagagggt 540
agaaaagcaa agaccagact agttggcaaa ttggaaccca actacccagt ttatttattt 600
cttaggcgta gaaggaataa tttaggggga actgaagagc caacctaaag gaaaaaaata 660
aaataaaggg 670

<210> 2151
<211> 670
<212> DNA
<213> Homo sapiens

<400> 2151
tcggcacagt gacagaggca cccagggctc agcaagctca tggcccagct tgttggactc 60
agagggcaga agaatcacat tctaaacatg ataaggtata gccagcagga ggcagattcc 120
cagattgatt ctccagagcc ttgtaggtcc caagggtgcc tatgacacca atgggaatct 180
gaaccaacac agacagcaca gtcttcttag gagaccctag tgcagcagcg ctggcctcct 240
cctgagcgtg cacgcttata tggcttctga gctggccagg ctacttcatg catttggttt 300
aatgggtcct cgtaaggcag gagaatcttc ttgaacttgg agttgggtct gtggtccatt 360
ggtcagtact ttgttcagag gcactgaggg tgggaaggct catggagctg gattctgctg 420
ctgggaagct gggtgggcct tgtttgtggg cctcaggttc aggactgaat gagagtcctc 480
ttgttgcgag ttgagggtgt actctgggca tgccatgccc ttttttttgta ctaagagggt 540
agaaaagcaa agaccagact agttggcaaa ttggaaccca actacccagt ttatttattt 600
cttaggcgta gaaggaataa tttaggggga actgaagagc caacctaaag gaaaaaaata 660
aaataaaggg 670

<210> 2152
<211> 24413
<212> DNA
<213> Homo sapiens

<400> 2152
ccggctcgcg gcgcgtggag gctgctccca gccgcgcgcg agtcagactc gggtgggggt 60
cccggcggcg gtagcggcgg cggcggtgcg agcatgtcgt ggctcttcgg cattaacaag 120
ggccccaagg gtgaaggcgc ggggccgccg ccgcctttgc cgcccgcgca gcccggggcc 180
gagggcggcg gggaccgcgg gttgggagac cggccggcgc ccaaggacaa atggagcaac 240
ttcgacccca ccggcctgga gcgcgccgcc aaggcggcgc gcgagctgga gcactcgcgt 300
gagtgcggcg gggcggggcg gggcgggcgg gcgggcggga cgggccgggg aagcgggagc 360
cctggcccct gccgctcctc gctgctgtcg gcagccactt cccgggcgag actgcgcccc 420
cggagcaccc ccggccggag ccgtctcgcg tgccgggagg atcggactct ttccgtcacc 480
cgtttgcacc tctgcagctg tcaggagcgg gtcaggtgcg aaaagcggtg cggaggtggc 540
gctcataggt tacaggggtc agggtctggg gctggccgtg gtcttcagtt accgccgagc 600
gtgcgggatc cttctgcgct tgccgcctcc acgtggcaca ggccaaggcg tggccagatg 660
ggtagatggg tttgttgggt ggttgctagc agtttccacg taacaaggga agcgtatttg 720

09505082 - 062201

```
agagttactt gattctaacg agactagcag atttgcactt cttgttggaa gacgttagca    780
tttgcacggc gaggtctgtg aagccacagg ccaggccgtg ctgctcagct tgagtaaacc    840
cctgacccaa ggccctcagg gtgtgagcac tgactgcacc ttccctaagc tcgggtctct    900
tcccccagcc ttcctttccc ctgtggcttt aacgatttgt agcacgatgc agttcaaatg    960
gctaggagtc tggaacgtag aaggtgctga attcattgaa agaatacagt ggttctcaac   1020
tcttgtttaa gccggggttc tttctattta tttatatatt gagacacagt atcgccctgt   1080
cgccgaggct ggagtgcagt ggtgcgattt cggctccctg caacctccgc ctccgattct   1140
cctgccgcag cctctcgagt agctgggatt acagccgcgc agcaccacgc ccggctaatt   1200
ttttttgtat ctttagtaga gacgggtttc accatgttgg ccagggtgct ctccaactcc   1260
tgacctcgtg atccgcccgc cttgtcctcc tgaagtgttg ggattacagg cctgagccac   1320
agcgcccaga cagaagggat tccttttttt ttttttttct ttttttgag atgagtctcg    1380
ctctgtcgcc caggctggag tgcagtgacg tgatctccac tcactgcaag ctccgcctcc   1440
cgtgttcaca ccattctcct gcctcagcct cccgaatagc tgggagtaca ggcgcccgcc   1500
accacgcccg gctaattttg tagagatggg gtttcaccgt gttagccagg atggtctcga   1560
tctcctgacc tcgtgattaa ttttttgtat ttttagtaga gacggggttt cactgtatta   1620
gccagggtgg tctcgatctc ctgacctcgt ggtccacccg cctcggcctc ccaaagtgct   1680
gggattacag gcgtgagcca ccgcatgcca cctttttttt tttaagatga tgtcttgctc   1740
tttggccagg ctggagtgca atggcgccat cttgtctcac tgcaaaccgc aacgccctgg   1800
ttcaaagaat tctgctgcct cagcctccca agtagctggg attacaggca cgcgccacca   1860
cgcccagcta atttttgtat ttttagtaga gacgtggttt caccaccttg gccagggtgg   1920
tcttgaccac ctgaccccgt gatccacccg cctcgacctc ccaaagtgat gagattacag   1980
tcctgagcca ccgcaccctg ccagcagggg ttccttttta gaaagaagat catttaggga   2040
atccctggtg tgaagcagat ataaacagag tttccctgtt taaggaggga tggcctggtg   2100
gtacttgtgg ttccatcctg tgcccttccc cggggtgctg gggaacatcc tgagctgagg   2160
tttctggccc cggctgggtc tcataacccc agagggacat tcaggtttgg gcccaggccc   2220
aggctaacat ggatagtcct agctgggcac caccgacagt gcgtgttctg ttttgaagag   2280
atggggtctt gctttgtcgc ccagtctggc cttgacctcc tgggtaaaag ccgtccaacc   2340
gtctcagcct cctgaggaga ggggactgca ggcttgctcg gtaatttttc ttttttcttt   2400
tctttttttc ttttttttct tgacggagtc tcgctgtcgc ccaggctgga gtgcagtggc   2460
gtgatcacgg ctcactgcaa gctccgcctc ctgggtacac gccattctcc tgcctcagcc   2520
tcccgagtag ctgggactac aagtgcccgc cgccacgccc ggctaatttt ttgtattttt   2580
tttagagacc ggttttcacc atgttagcca gaatggtctc gatctcctga ccccgtgatc   2640
cacccgcctc ggccacccaa agtgctggga ttacagacgt gagccaccgc gcccggcttt   2700
gctccgtaat ttttctgtgt gtttttgaga ctgagtctgg ctctgccgcc caggctggaa   2760
tgcagtggca tcatctctgc tcactgcaac ctttgccttt ggggttcaag cgattctcct   2820
gcctcagcct cccgagtagc tgggatcaca ggcgcccgcc agcacacctg gctaattttt   2880
gtgttttttt actagagacg gggtttcacc atgttgttta ggctggtctt gaattctggc   2940
ctcaggtgat tcgcccacct cggcctccca aagcgctggg atgacaggcg tgagccgctg   3000
ctcatggcct tcctcggtaa ttttaacgat caggttagga tgggaatcaa gggctggact   3060
tcagggcacc tcggaggaca gcggatgttg gtgactgact ttcttgctgc aggcttattt   3120
ggagggttcc tttgtgtcct agttcctggg ggttttcacc cgctaacttc acttagagat   3180
tgaaacttct cccacttcca gaagctgaat cgtagtgatc agcctgcggc cccctgcagt   3240
ggtacaggcc tggttgagca gcctcaggcc gcctccccat agtgcagacc tgtgcctctg   3300
agttgctcca gtcctggcgg ccccggagct cctgacccgc agtccgctct gccggcgttg   3360
ccagtgcctt ggtctgccct ctctgtggtg gagcggggcc cggggcaggg tctccaggtg   3420
caccgtgggg agccctccat caggcttttg tttctgtgga ttgtgttcca ggtgtgggct   3480
ctttcatttt gatcccttct ctccttcctg gcctcactgc tggcgggtga gagaggtttc   3540
tccggagttg actgcccccc ttccccgggt gccccctgcc ctgcccctct gcctggtagc   3600
ccctctgcaa gcccggcccc tcccgacgct cctggcttcc tccgtgcccc tttcctggca   3660
gcggggtcgc cgagattcgc ccgttgcttt gtccttgctg ctctccaggc aaacgggcgg   3720
ctcctcctca ccgactgcct cctctgtccc ttgaggctat agccccatgc cgcctcgttc   3780
ccagagtctg ccctgacccc tcctccggcc tgtccttgga agtcacagca gtacattatc   3840
ccagaactgt ctgtgagcac cagcgctcgc cctgcactcc acagaggggg tgcctggagg   3900
agagcctcgt gccctgtggg tgtgaattca cgcgctggga cgcacgtccc tggcacaggg   3960
tcacaccaaa gtggtgaatg attgttctca ttctaataac cgagaggcca cacgggcacc   4020
tgacctgctc tttcccctct cctcctcccc agagtcactg ggggtaggaa ctgtcaatga   4080
gccattttca ggggagggag tggcctcagc ttaatccagc caaaggtccc ctcgggagga   4140
aacaggcaga gctcctcacc gtgacaccca cgttcctgtc actgctctgt ggcaggaccc   4200
tgggggactg acacaccctc agtcccctcg gggtcagagt gagagtggtt gagagcccgg   4260
ggtcgcttca gcccttggct tcccgagttt agcagccaaa cccgttgacc tggcactgtc   4320
ttccctgaga ggcaggtccc ggtctcatct gtgctctgtt cactggggcc cccgaggtta   4380
```

gctaccaagg cgcttcctga aatgtgacgc tgatgcccgt cagcccagtt cgtgcctaac 4440
cacaggccca agcagaccca ccccaacacc aaagtgtcgc tgcctctgtc taaatgcaac 4500
gagtgctccc cacggcactt ccccctgcgt cagtcacctc caaaaattac acctgagctg 4560
agaacagacg ctgggctcta gttagtgacg tgtttgctgc agttgactct gaaggcttaa 4620
aaaagtgaga cgggctgcgg gaggaagaga gacgggaaca acgcaccaac ccaggagcat 4680
cgggggtccc tgcctacttt acacgtcttt ctgtgttaga ataatttttt ttttttgag 4740
acggactctt gctgtctccc ccgctggagt gcattgcttc gatctctgct cactgcaagc 4800
tctgcctccc aggttcacgc cattctcctg cctcagcctc ctgagtagct aggactacaa 4860
gtgcccgccg ccacgcccgg ctaatttttt gtatttttag tagagacggg gtttcactgt 4920
gttaaccagg atggtcttga tctcctgacc tcatgatcca cccgcctcag cctcccaaag 4980
tgctgggatt acaggcgtga gccaccacgc cctgctagaa taatttttt ttagagacgg 5040
agttgcgctc tgttgccccg gctggagtgc ggtggtgcga tctcggctcg ctgcaagctc 5100
tgcctcccag gttccagcaa ttctccagcc ttggcctccc cagtagctga gatcacaggc 5160
gtgcaccacc acacccagct ttttttgtg tttttagtgg agacaggatt tcgccatgtt 5220
ggccaggttg gagattttat ttttcttaag tctcactctg tccagctgga gtgcagcagt 5280
gtgatctggg tgactgtagc ctctgcctcc ggggttcaag ccatcctccc acctgagcct 5340
cagagttgct gggattacag gcgtgaacca ccgcttccca ctaggttttt gtatttttag 5400
tagaggttgg gtttcaccat gttggccagg ctttggtatc cgtgtatcct acacctgctc 5460
tccgtgccac atgcgcccgc aggttacgcc aaggaggccc tgaatctggc gcagatgcag 5520
gagcagacgc tgcagttgga gcaacagtcc aagctcaaag tgagtggggc cggtgtgggc 5580
gaggaggccg gggcgcacat ggggttcagg cgtggagatt ggtggggctg ctactggtgg 5640
gtagggccag gggcgtgtac atgggcagca gtggggccag ggccgagctt gggcgcctca 5700
tttcacagag ggaaacaagg ggaggtgaga gacgctgccg cagagccgcc cgagagggag 5760
ggtcagtgtt ggtgagggcg tctggtcgtc ctgagggagg gccggtgttg gtgagggcat 5820
ctggtcgtcc tgagggaggg ggtcttcttc acattctcac ctcatttctt ttcactcagc 5880
aggatttttt attttatttt attttatttt attttatttt attttattta ttttgaaacg 5940
gagtctcact cttgcctagg ctggagtgca atggcgcaat ctcggctcac tgcaacctcc 6000
gcctcccggg ttcaagcgat tcatctgcct cagcctctgg agtagctggg attacaggca 6060
cgcgccacca cgcctggcta atgttgtatt ttagtagaga cggggtttct ccatgttggt 6120
caggctggtc tctaactccc gacctcaggt gatccacccg cctcggcctc tcaaactgct 6180
gggattacag gcacgcgcca ccacgcctgg cctattttat tttattttga gacagagtgt 6240
cactctgtcc cccagtctgg cgtgcaatgg tttgatctcg gctcactgca acctccacct 6300
cccgggttca acctcctgcc tcagccttcc gagcagctgg gactacagga gcctgccacc 6360
acatctggcg aatttttgta tttttagtag agaaggggtt tcagcatgtt gtccaggttg 6420
gtcttgaact cctgacctca ggtgatccag ccactttggc ctcacaaagt gctgggatta 6480
taggcaagag cgatggcgcc cggcccactc agcaggattc ctagaatggg cacgagctct 6540
gccctcatca cagtccaaaa gtgagcacct gcctggagct gcccagaaac agccttgtgg 6600
ggtggggttg gtgtctgacc tccctccccg ggggccttcg caggcttctc tgctggtgct 6660
tctgtgcctg tgggtctgga ttcctccagg gcctgatcct gggtgcagat gcagctggaa 6720
gccctgaacc tgctgcacac actagtctgg gcacggagtc tctgccgtgc cggagctgtg 6780
cagacacagg agcggctgtc aggcagtgcc agccctgagc aagtgccagc tggtgagtgc 6840
tgtgctctgc aggagtatga ggccgccgtg gagcagctca agagcgagca gatccgggcg 6900
caggctgagg agaggaggaa gaccctgagc gaggagaccc ggcagcacca ggccgtaaga 6960
gcgcaagagg ccgcgaggga ggccgcccgg ctgcggggag cggcctgggg caggactggg 7020
agctgggtgt ggtcccgggg cactctggag tcagccatta gagctgccct cggaacggcc 7080
ttgcacaaac gcctaagacc tgtaaggtcc ctcactgctg agccggacgg gaggtccccg 7140
cgcctcccca cgtttgtgtg aggctgatgg cgcgtcggag tccccggcgc tccgcccagt 7200
cggcccagac tgcagctccc ggctgagatg tgtctttgcc gccctcttct cccccagagg 7260
gcccagtatc aagacaagct ggcccggcag cgctacgagg accaactgaa gcagcaggtg 7320
agctcagcct cccctgcgag gcgcctgcgt ccctgagaac gtaggtggct ttgtgggacc 7380
agtcagtggg tcagaggcca cggggcaaga acgatggggt tgctgacggt gggtgctaga 7440
gcaggggaaa ctactcggac agacacgcac cagcacacgt gtacaggcac acatgcagat 7500
gtgtgcacac atgtacacgg agacacaggc acctgcccac acagacacac actcctcgca 7560
cacacactcc cggcagacag gcacacacac ccctgcacac atgggcacac acacacccct 7620
gcacacacgg gcccacacac tcccctgcac acatggggaa acatgggccc acacacacac 7680
acccctgtgc gcacacaccc ctacacaggg gcatggacag acacccgcaa acacacccca 7740
acacaacacg ggcacgcaca cacacacccc gccacaacac aggcacacat acccctgcac 7800
acaggcctgc acatacaccc ccacacaggg gcatgctcac acagcccgca cacacacagg 7860
tatgcagaca cacccaaaca cacatgggtc ctcaggcaca cactcccgca tggggcatgc 7920
acgcacctcc cacacacacc cgatcacaca taggcatgca caccctctg cacacatggg 7980
ggcttacaca cccccccgca cacgtgggcc cgctcacaca gcccacacac atacccttc 8040

09650082 - 091204

```
acacaggcac acaccgcccc gcacacacgg gcctgcacac acacccccac acgggcatgc   8100
acacgcccac acacacgggc gcgcacacac ccggacatgc acaaacaccc acctgcacac   8160
acgggcacac cccaccacac acacacacag gcatggacac acgcacaccc cctcacacat   8220
aggcacacat acacaaccca ggcacacacc cccttgcaca gacgggcacg cacacagtcc   8280
cacacatggg cacacgcgca caccgccgca aacacacaca cgggcacgtg tacgcacccc   8340
cactcacagt gtgcctcata catacgggca cgcacctgca cacgagggca cacccccacc   8400
ccccaccccc acacaccccc gcacccatgg gcacacacac attactgcac gtgagggcat   8460
gcacacacac gccctgcaca cccccacaca cagacccctt gtgtgggttc cacagcagcg   8520
gctctccagg cacgacaagc ctccttgtct cccacccggg cgcccagctg gcagtctggg   8580
aggttctgct tgggagggct ggtcagtggc ggcgggcggg tctctgggtc tatgagaaaa   8640
gcttgggtga catctgttcc ctggtcctta gggaccgtca ccttcagtcc tgagctcgca   8700
ggcggggttc acatgttgcc tgttgtgggc attgtagctt taacgtttaa ttggcggaag   8760
acagaagctt ccttaagccc agcctgaatc agggcagtgg tgttgggagg tcggcccgcg   8820
gtggcccttg tcagggaagc cacagtgggg gctgtttctg ccactgggga gtttgggacc   8880
ctgaacccat cccctcagtg actgccgtcc cagccgatgt cacccgtgtc tgtgtcaggg   8940
tgcggcgtct gcaggtcccc aggtgcccag gacgcttgga gttctgtggt cctggggcgg   9000
acgcaacctc tggattggtg ttgagcattt ttctggtttt aaaggctttt ctctttttct   9060
gcggcttctt ctcagcaact tctcaatgag gagaatttac ggaagcagga ggagtccgtg   9120
cagaagcagg aagccatgcg gcgaggtagg ctgtctgctc tcctggctgg ggcggaggtg   9180
gcgggggctg cttgtggatc cggcgtgcac tctgagcctg agttctgccg cccggcccct   9240
catagctacc agtgcagtgg gcgaggcctg ctggggctct gcggggtggg gctccctctc   9300
ggaagacacc tctgtctgcg agtggacgcc aggatctgtt cagggagggc aggagctgct   9360
tcacttcatg ggaagtacag gggccttttt ttttttttg agacggagtc tcgctctgtc   9420
acccaggcag gagtgcaata gcacgatctc agctcactgc aacctctgcc tcccaggttt   9480
aagcaattct cctgcctcag cctcccgagt agctgggatt ataggctccc gccaccacgc   9540
ccagctaatt tttttgtatc ttcagtagag aaagggtttc actgtgttgg ccaggctggt   9600
cttgaacttc ttgatctcat tatccgcctg ccttggcctt ccacagtgct gggattacag   9660
gcgtgagcct ctgcgttctg cctagaacat gggtctttac tgtcctggtt tcagtgggga   9720
tcacaggtat ttggtgccat gtggcatttg ttggcgagtg ctccaggcaa acgtctgtca   9780
ccactcttca ccgtgggtgg gcttgtggcg aggtgtgtgc gtttaatgtt cagtagccag   9840
gcacgtggca cgtcacgcgt gtctgagttc tgacagctgt gtttctgtgt gagggggggct   9900
tccttcagaa ctccgcgttc tggtttttg cttcaaagag ctcgtcctga gaagttgcct   9960
aggcctctgg gtcggatttc tgccctaatc catgggcagg gccggcctgt ggcgctgtcc  10020
ctaccaaggt ctgtgtgtgt ctgtggcacg ggcctgtcca tggactgggc ttgtccgtgg  10080
agtgggtcgg tccatggcct tagcctgttg gtggcgtggg ccggtccacg gcatgggcct  10140
gtctgtggcg tgggccggtc cgtggtgcgg gcctgtccgt ggccttagcc tgttggtggc  10200
gtgggccggt ccgtggcatg ggcctgtctg tggcgttggt ctgtccgtgg cgtgggccgg  10260
tccgtggcgt gggccggtcc acagtgtggg tggaggtgga cgtgctgcac tgcatggtgc  10320
tgagctgccc tgcctctctg gggcagccac cgtggagcgg gagatggagc tgcggcacaa  10380
gaatgagatg ctgcgagtgg agaccgaggc ccgggcgcgc gccaaggccg agcgggagaa  10440
tgcagacatc atccgcgagc agatccgcct gaaggcgtcc gagcaccgtc agaccgtctt  10500
ggagtccatc aggtgagcac tgcccaggcc cgggccggcc acagatggag ccccgcaggt  10560
gtgagtcgct ggtcccaggg cgctctccag ctcttccagg cctggccgcc ataggctgac  10620
tccttggtgg gggcactgcc cctctgtcct ggcaaggccg tgccgccatg tcagggcctc  10680
accctcaacc tgctctcgct gcgtggtacg gatcttcgtg tccttcctgg tcacaccact  10740
gctttccccg caggacggct ggcaccttgt ttggggaagg attccgtgcc tttgtgacag  10800
accgggacaa agtgacagcc acggtaaaca tattcataaa acagggctgg caggtggctg  10860
agaggcagca tgtgggggcc tcctggagcc ccaggtcctg tccctgccgg ctctgcacag  10920
ccctgtagct ctcccagcac agagcaaacc cacgttgtac ctgctgggct cggctgctcc  10980
tccctccttg agctgggaga aaaaaatgca gttgccagcc tgggccacac ggtgagaccc  11040
catctctacg aagaataaaa cattagctgg gtgtgatggt ggcgcctgtg gtcctgctac  11100
tcgagaggct gaggtaggag gatcacttaa gcccaggagg tttgggctgc agtgagccaa  11160
cattgcacca ctgcactcca ttcttggcga gagaataaga ccttgtctca agaaaaaaat  11220
ggccaggcgg tagtggctca ggcctgtaat cccagcattt tcggaggcgg aggtgggcgg  11280
atcacgaggt ccggagatcg agatcatcct ggtaagagtg aaaccctgtc tctactaaaa  11340
aaaagaaaaa aaaagaaaag aattagctgg gtgtggtgac atgtgcctgt aatctcggga  11400
ggctgaggca ggagaatcac ttgaacccgg gtggtggagg ttgcaatgag tcgagatccc  11460
gccactgcac cccaagacca gcatgaccaa catggtgaaa ccccatctct gctaaaaata  11520
caaaaattag caggccaagg tggcgtgcgc ctggaatccc agctgcttgg gaggctgagg  11580
taggaaaatt ggttgaaccc aggaggcgga agttgcagtg agctgaaacc gcacaattgc  11640
actccaacct gtggaagaag agcgaaactc tgtctcaaaa aaacaaacaa aataaataag  11700
```

09504082 - 091702

ccaggcctgg tggctcactg gtgtaatccc agcactttgg gaggccaaga cgggtggatc 11760
acttgaggtc agaagttcat gaccagcctg gccaacatgg tgaaaaccca tctctactaa 11820
aaatacaaaa attggccggg cctcgtggca caggtctgta ttagctgagt gtggtgacct 11880
gagcctgtaa tcccagtcac tcgggaggct gaggcaggag aactgcttga acctggaagg 11940
cggaggttgc agtgagccaa gatggcacca ttgcactcca gcctggccac agaacaaaac 12000
cctttctcta aaaacaaagt caagggcgca ttaagcagct ccttcatgtc ctcaggtgac 12060
accgtctcac caacatggca acaccacctg caacattcac cgtcacgctg accaggccac 12120
cggcaggtgc tgcagtcaca gcagtgggcg ccggcaccac ggcagagcaa gtgcccactc 12180
agtgccgggc acctactgtg tgctgggcgg ggtgggggga cggaggacac agccatgtgc 12240
gacctggggc gccaccacag caggccagag cctgggcaca aaagagcgag gctttaaacg 12300
agagaagaat ctgaacttca aactctcagg gttttattcc gaataacgaa agtttttgcg 12360
aaatggagtc gggttcgctt tctgggtctt tgatttttt ttttttgaga cagagtctca 12420
ctttcaagtg tgctgctcaa gtgcagtggc gcgatctcga ctcactgtca gcttcgcctc 12480
ttgggttcac accattctcc tgtctcagcc tccggagtag ctgggactac aggtgtctgt 12540
cgccacgccc ggctaatttt tttgtatttt tagtagagag agggtttcat cctgttagcc 12600
aagatggttt cgatctcctg acctcgtgat ccgcccgcgt gggcctccca aagtgctggg 12660
attacgggcg tgagccaccg tgctcagcca cagccagcta atttttttcat gtttttagta 12720
gagacgaggt ttttccaggt tggttaggct ggtcttgaac tccaacctct ggtgatacgc 12780
cggccttggc ctcccaaagt gctgggatta cagacctggc cagcctaaac gatttttaaa 12840
acaagttaga gattttgggt tagtcttgtt ttccaggaat aaagtaccat ttttagtggc 12900
caaggatgta ccagagggtg tggccctgtg acatccagct gggtctgccc agggccccgc 12960
tcagcgaccg aggctttcta ggatttatgc tgccagttgc agagaaaatg gccctgagtg 13020
agggcgttat gactgcccca cctgcctcct gtaaccgcgt ggctgtggga ttcggggctg 13080
ggaattcggg ttcctgtggg gccagcacac ggccctgtgc ttctccctca ggcggagaga 13140
gggtgggggc agccccgtgc gtctcctgct ctaggaggga gggacggtgg gggccggtgc 13200
gccagtgcgg tgtctctgct gcaggtggct gggctgacgc tgctggctgt cggggtctac 13260
tcagccaaga atgcgacagc cgtcactggc cgcttcatcg aggctcggct ggggaagccg 13320
tccctagtga gggagacgtc ccgcatcacg gtgctggagg cgctgcggca ccccatccag 13380
gtagcggcgc aggcctggcc ctccctgagt gcagttcctg gctgagtccc ttctgcccca 13440
cgagcacagc ccacgcacac cctcccgtcc cttccctttc cccggataac aggcacccgc 13500
acgctgcttc acgggtgggt tttcctgtct ggcgctgtac cttaggggtc tgcatcagtg 13560
agacccttcc cctgtctgcc tcggtgtccc ttgctcaggg ctcttgatgg ggcctgggag 13620
cacatcgggg tccttgcaag acccgggact tgggtgtgcg gccgtctgtc ggggaagctg 13680
ctacaggcca tggcgtctgg tggcctccct ggggagccgc gccgcttgcc agcccctgag 13740
gtgcctgctc tccacaggtc actgggtagg tggttaagaa aataaaagcc aataaggaac 13800
cggaaaatgc ccctaatccc agcaatagcc tcctggtctc ccggcggggc agggttccag 13860
ctccgggccg gtcctggctg tgctttgggg cagctccgtt tctgtgtgtt accgagcatg 13920
tgtgtgcgtt ggtggctgtt ccgtggctgt ggcaggtgac ccaatggtgc ttccccttcc 13980
cctccggcag gtcagccggc ggctcctcag tcgaccccag gacgtgctgg agggtgttgt 14040
gcttagtgta agtcggtgtg cctgggaccg gggaggtgca gggaggggac cccggagctg 14100
ggctgggctg tggcccttgc tagcgctcgt ggtggcgccc aggagctttt gggtcctgag 14160
atgcaactgc ttggactgtg ccggggatag ataggctgcc cacgagctgg gcggcttcct 14220
gaggagcaga gtccgcaccc gggcattccc gcagcccctg tcaccgaggc ttccgtgggt 14280
gcagagtgtc tcccccaaac ccccgtcttc cccggcagcc cagcctggaa gcacgggtgc 14340
gcgacatcgc catagcaacc aggaacacca agaagaaccg gggcctgtac aggcacatcc 14400
tgctgtatgg gccaccaggc accgggaaga cgctgtttgc caaggtgaga gcgcctggct 14460
gaacaggtgg gccaggggcc gctggggtct cacctgcctg caggtgtctg ggggcctcag 14520
ccgcctgggg aatggacccc ccttaggcct ttgcctaccc tcgtgtaggc tcagggtgct 14580
ggtgtgggca gcagcgcctc ccatcttcca ggcgggggac gtctcctgtc tggcaggctg 14640
tggcttccag acagggacac ccggcagggg ctccacactc caggtggagt gtgcaggctt 14700
tgcagaggca gagggaacat ctgttctgtc tcccctcact cttcttgtcc agaaactcgc 14760
cctgcactca ggcatggact acgccatcat gacaggcggg gacgtggccc ccatggggcg 14820
ggaaggcgtg accgccatgc acaagctctt tgactgggcc aataccagcc ggcgcgggtg 14880
agacgtcccc acagcatgca ccaggccctt ggctgcggcc cagcaggctg ccttctggga 14940
agggggtcca ggtgtctctt ggggaccctg tctttctgca gctctgtcct tgtggccacg 15000
caggaggccc aatggagggt ccctcggagg gaaagtcccc tgagtgtgga ccctggtgga 15060
cacgaggtcc ccagcgtgtg gaggctgcca gtgggatact tggctcaggg cagaagggag 15120
gtgggtgggt gcaggggggag aggggtcttc acagctgcag gggaggctcc tccacagccg 15180
ccctcccccc aacacgcctg caggtgggcg tgggcactgg ttgccttttc tagaaccatt 15240
tgaaagttag ctgaagacag catggcacac tcccttcaat aggtcccaca gtgaccccgc 15300
gcagggcaca gcccgggcac ccttgtggcc tcggctgtcc tcgttggaac cacgatcctc 15360

09508680 - 051201

09650082 - 061701

```
atggttggca ccctcccctc tggcctttga cctttcactt tagaagacct gtccctgcgc  15420
caggcgtggt ggctcacggc tgtaatccca gactttcgga ggcggaggca ggcagatacg  15480
aggccaggag attgagacca tcctggctaa cttggtgaaa ccccgtctct actaaaaata  15540
caaaaaatta gccaggcatg gtggtgggca cctgtagtcc cagctactca ggaggctgag  15600
gcaggagaat ggcgtgaacc cgggaggcag agcctgcagt gagccgagat tgcgccactg  15660
cactccagcc tgggagacag agcgagactc tgtctcaaaa aaaaaaaaaa agaccctgct  15720
ccttgcgtgg actcttgagc actgcactgg gtcgctgtgt gggtgaaacc tgcagggcgg  15780
aggctgttgc cccatgtgtg gttggctggt gtgtgggtga aacctgcagg gcagagtctg  15840
ttgccccctg tgtagttggt ttcccactgc cttctgaggc tgagacgtgg tcagctgccc  15900
agaggccagg ctgatcggct tctgtcgagt ccaggactta gggctcctga tggggcagag  15960
cctgaccccg tggggatctg cctgcctggc ctgctcctgc cgcggccgga cgctgctgtg  16020
ggctgctcct ggcgtcactc tcgccttgct tggcctctct ctcgttcaca gcctcctgct  16080
cttcatggat gaagcagacg ccttccttcg gaagcgagcc actgtgagtg tcactaagcc  16140
tctgtctggc cacaggaggg tggtcgggtg ggcgcggctg tcatcctggg ccaggctgca  16200
gcccttaagc tggcttgcag tggcgcaatc ttggctcgct gcaacctctg cctcctgggt  16260
tcaagctgct ctcctgcctc agcccccctga gtagctggga ttacaggtgt ttgccaccac  16320
acctagttaa gttttttgta tttttagtag agatggggtt tcaccatgtt ggtcaagttg  16380
gtcaagaact cctgatctca aatgatctgc ccacctggcc tcccaaaatg ctgggattac  16440
atgcgtgatc caccacgccc agccatacag ttattatttt aatacagggt gtctgtcgcc  16500
caggctggag tgcaggggcg acatctccag ctcaagcagt cctcctgcct cagcctcccg  16560
agaagctggg attgcagagg cacactaaca cgcccggcta atttttttgt aacgttagta  16620
gagatggagt ttcccacatt gtccaggcag ggctcaaact tctgaactaa agaaattcac  16680
cggccttggc ctggcacagt ggctcacgtg tgtaatccca gcactttggg aggccaaggc  16740
aggtggatga cgaggtcagg agttcaagac cagcttggtc aatatggtga aaccccgtct  16800
atagtaaaaa tacaaaaatt agccgggcgt cgtggggcac gcatgtaatc ccagctgctc  16860
aggatgctga tgcaggagaa tcgcttgaac ccaggaggca gaggttgcag tgagctgaga  16920
tcgtgccact gcactccaga ctgagagaca gaacaagact tcgtctcaaa aaaaaaagcg  16980
agagatttga tcgccttgac cttctgaagt gctaggatta aagatgtgag ccctcagtca  17040
ggctttttt ttaaatgtat tttttatttt ttagcaattc tcatgcctca gcctcccaag  17100
tggcttgaga ttacaggtgt gccaccatgc atggctaatt tttgtatttc tagtacagat  17160
ggggtctcac catgttggcc aggctggtct caaactccct acctcaggtg atccgcctgc  17220
ctcagcctcc caaaatgctg ggttacatgc ttgagccacc gcccctggcc ctggtcagga  17280
ttttgagttt agatccatga aagtgtcgcc acgtccctgc tccctgcagg agggaggcct  17340
gtgggacttt ctgctctggc tgtttacaag gctttgcttc tggtgcctaa ggctggaacc  17400
ttctctctgc aggaggagat aagcaaggac ctcagagcca cactgaacgc cttcctgtac  17460
cacatgggcc aacacagcaa caagtgaggg agcccctcgg gtcctgagcc cccgggcagg  17520
gctgtgcagc cgtcgccctt ggttcccact gagggtccct ggctcacagt gctgggcacc  17580
agctgtggcc tcagtgtgcc cacctcagat gtcccctggg aacggcccag ctcgggacag  17640
cacggggtgt cattgaggaa catgcagggg cctcccgggc agagctgggg tcagtcctgt  17700
cttcacggcc ctgtgcgccg ccgccccagc ttgcaggtcc ctctgcccct agatttctgc  17760
ggtcctgtgc ctgcaaggga ggtggtctga ttgctgccgc ccagaggtcc ccagtagggt  17820
gaccggccct atgtccaggc tccctcttcc ctcccaaatc ccttaatttt gagttttctt  17880
ggtctcctgg gcccctccag ccccagtcac gtgtcacacg gaggatcaag tcctgctggt  17940
cggccgtggc tgactcttca ggcacgttgg gctcctgggt cagctgctgc cgttcgacgc  18000
tccctggagc cctgactcag gtccttccca gagaggcaag gctggggccc tgctgagcct  18060
ctgctgaacc cgggcccccg aggtcctgct tctggctcgc atggccataa tcttgacagg  18120
gactctgggt cccgcatccc tgctcccagc acagcggggc tcaggtagca ggagggagtg  18180
gtgttcccgg cactgcctat caggctgggc gagggtcagc ggggaagtac cacacagggc  18240
aagaacagag gcccgagaag ccgggcgggg ggcagctggg cgtggtgggg caggcaggcg  18300
ggtgaccagg gctgtggctg cgttctcccc atgtttcctg tgctcacaag ctgccgcttt  18360
agattctccc aaaaagtctc cccgaggggg ctgaggagcc cccgttgccc tcggggcatc  18420
tcagctggca gccccagcgt ttccttcccc atccctgtcc tacagattca tgctggtcct  18480
ggccagcaat ctgcctgagc agttcgactg tgccatcaac agccgcattg acgtgatggt  18540
ccacttcgac ctgccgcagc aggaggagcg ggagcgcctg gtgagactgc attttgacaa  18600
ctgtgttctt aagccggcca cagaaggaaa acggtgagtg tcccgcctca cccggccccc  18660
aatccaggca ccatatggca tgggtgtagg ccagctgcct gtcttccggc ctccacctca  18720
tggtgtgggg tccgcggcct tggctgcctc acttgggaac tccttcccca ggcgcctgaa  18780
gctggcccag tttgactacg ggaggaagtg ctcggaggtc gctcggctga cggagggcat  18840
gtcgggccgg gagatcgctc agctggccgt gtcctggcag gtgagtcagg ctccggcacg  18900
tccacccaga cgggacccca gctgctgtgg agatgctcag ttgcgccagg cctgtcccag  18960
caccggtgtc atgtgggagc ttctgttgag gggttttcag tgcacagacg tgacacaggg  19020
```

cccccctgcct cagtcgggcc actccacgca gcagcgtgca cctgctcgtg ccctcaggag 19080
ggtggggcca tgttggttgc tgacagtcac acggggctct ctggaagcca gtccagcatc 19140
ccaggtgccc gggctctgct gggtgtggtg ggaggtttct ggctctcatc ttggccaaca 19200
ggcacctcct agagggaatg gtcgtcagga caggccccgt gtgagttggg tggtgggggt 19260
ggagggacgt tgtgtttcct ggaccaggtc ccttggcttg gtcctgtttg acgggttcag 19320
acacacggtg ggactggcct ccgattgtcc cacagttagt tgttcctcgg aggcacccct 19380
cctgctgctc cttggatact ccagggccga ggagccgaga ctcactggag tgtgggcatg 19440
gccatccaga gagctctgat caggccgggc gcggtggctc acgcctgcaa tcccagcact 19500
ttgggaggct gaggcaggca tatcacgggg tcagattgag accatcctgg ccaatatgtc 19560
gaaaccccgt ctctactaaa aatacaaaaa ttagctgagt ttggtggtgc atgcctgtta 19620
tcccagccac acgggaggct gaggcagaag aattgcttga cccggggagt tggaggttgc 19680
aatgagccaa gatcgcacca ccgcactcca gcctggccaa agattgagac tccatctcaa 19740
aataaaagaa agctttggtc tttgggggtt gctgaaaaag caaaaccagg tctgtggggt 19800
agaaggcgcc ctggccacac acaggcattg ccgcctctgg ggtccgcaga gtctgtgtga 19860
caacctggtc actcgatcta gcagcgtatt tgaatgaatg agtgacagct taatgaagta 19920
gccaagtacc ttgatttgaa cgtaggagcc ggggtatgta gggagctgta ttagtcagta 19980
caggctgggt tatgccgctg tgacaaagag tcccagatct caaaccccgt ccttgtgggt 20040
cagctgaggt ctctgttcca ggccgtcccc acttggaacc aggtctgttt ccacaactca 20100
gaaagtggag gctgggtatg gtggtggctg acgcttgtat tcccagcatt tggggaggcc 20160
aagtcagtca gattatttga agccaggggt tcaggaccag cctggaaagc aaggtgagac 20220
cccatctcta caaaaaatga aaaaattggc cggacctagt ggcacatgcc tgtaatgcca 20280
gctgcttggg aggctgaggt gggagggtca cttgagtcca ggaggcggag gctgcagtga 20340
gctgtgattg tgccactgca ctccagcctg ggttacagag caagaccctg tcttaaaaac 20400
tgagaataat ttggaacaag cccggtggct cactcctgta atcccagcat gttgggaggc 20460
caaggagaga agatcacttg aggtcaggag ttcaagacca ccctggccaa catgatgaac 20520
cccacctcta caaaaaatac gaaaattagc tgggtgtggt ggtgggtgcc tgtaatccca 20580
gctactcagg aggctgaggc aggagaattg cttgaaccca cgaggcagag gatgcggtga 20640
gctgagatca tgccactgca ctgtagcctg agggacagag tgagactgtc tcaaaaataa 20700
taataagaag aataataatt tgggctgggc acagtggcac atgcctgtaa tcccagcact 20760
ttgggaggcc gaggtgttgg atcacttgag gtcaggagtt cgaggccagc ctggccagtg 20820
tgccgagacc ccacctctac taaaaataca aaaattaact ggacggggcc gggtgtggtg 20880
acttatgcct ctaatcccag cactttggga ggccgaggtg ggcggatcac ggggtcagga 20940
gttcaagacc agcctggaca acatggtgaa accccatctc tactaaaaaa taaaaaaatt 21000
atccaggcgt ggtggctggc gcctgtagtc ccagctactc aggaggctga ggcaggagga 21060
tcgcttgaac ccgggaggtg gaggttgcag tgagctgaga tggtgccact gcactccatc 21120
ctgggtgtca gagcgatact ccatctccaa aaaaaaaaaa aagaaagaaa ttaacctggt 21180
gtggtagcag gcacctgtaa tcccagctgc tcgggaggct gagtcaggag aattgctgga 21240
actcaggagg cagaggttgc agtgagctaa gatcacgcca cagcactcca gtctgggcga 21300
cagagcgaaa ctgtctcaaa atataaatga taacagtaat aatttggctt ggcacggtgg 21360
ctcttacatg tagcatttтc tacacataag attatgtcac ctgagaacag gtgattttac 21420
ctctcccttt tcagtttgga tgacttttct ttttcttgtc ccatatctct ggccagagct 21480
tccagcgata tgtggaatag aagtggtcag aattcttgct tggttctttc tcagaggaag 21540
ctttcagttt ttcaccactg agtatgttag ctgtggactt gtgatcgctg gccttctttg 21600
tgtttagggc atgttcttca atcctggttt gttaattttt tttgtttctt ttcttttctt 21660
ttggtggggg gaccagtctc gcttttgccg cccaggctgg agtgcagtag agacagggtt 21720
tcaccatgtt ggccaggctg gtctcgaact cctgacgtca ggtgacctgc ccacctcagc 21780
ctcccaaagt gctgggatta caggtgtgag ccactgcaac cgaccagttg aatttttttt 21840
ttttaatcat aaaagtgtgt tgaattttgt caaatgcttt tcctgcatga gatgagaggg 21900
tcatgtggtt tccttcctcc actctgctaa tattgattga ttttcatata ttgaactatc 21960
cttgcattcc aggaatgaat cctgcttggt tagggtgtag agtcctttaa ctatactgct 22020
aaattcgttt tgctggcatt ttgttgagga ctttcccagt gaggctcatc agggatattg 22080
gcctgccatt tctcttgtgg tgtgtttgtc tggctttaat atgagggtaa tgctggcttc 22140
ctaggatgag tgaggaaatg ttcttcaatt tgtccaagag tttgaggagt ggtactgatt 22200
cttcttaatg ttttgtgaat tcacatgtga agaaatcagg tccaggtctt ctctttgacc 22260
ttttatagct tgaagatctt aggttcccag aaaaattgca agggtagcac agagagctcc 22320
cgggcccggg gccttcccac atggtgaaca tcatgtgtca ctgttggacc cacccgcgac 22380
caggttttgc cccagaatcc cacccaggag gccacgtgac atttagctgt cacttctggt 22440
gggctcctgc caggtcccgt gcttcctgga ggggtggccc tgtgagcatc tgcgtagccc 22500
ctctcctctg ctgggccctg ggtgacgtgc agccactcgg gtggaccctg agggtccctg 22560
cacctgtttg ccctctcttg ggtgggctca agaccaaaaa tgatgttgag cagtcctggg 22620
cccctgagcc acagtggcgg tgcggctccg gtcagtgtct cctgcgctcc cgggcccccg 22680

2004205080 - 09 Dec 2004

acccacagtg gcggtccggc tctggtcagt gtctcctgcg ctcccgggcc cccgacccac 22740
agtggcggtc cggctccggt cggtgtctcc ccacacagtg gctcttggcg aggggtgggc 22800
gctggcagag gggacgggca ccacgtggtc atccccatga caggttctgt catggtgaca 22860
gtgttgtggg aggatggtgt gctgctgccc ctgcaccccg tgagatgaat cctgcctctg 22920
ggaggtacag ctgggacggg gcgagggacc cactcagctg tccaggaagg gtcccctgcc 22980
ctgtgcttcc tccaggtgtc ctggtgcact cctgagcacg gcacctagtg ggggtcccca 23040
caccctcacc ctgacccatg ggtgcctccc cttggggact ccacgcccct cgctggcact 23100
gagatggaga gcgacctgtc cgtggcagaa gggctgctgc acctgaggtg cctaaggcga 23160
caccaagggc cacagcccca gtagctccag cctccgtgtg ctcaatgcca agccctgtgc 23220
ccaggaggac agggaaatgg aggcagaggt ggccttgatg tcccaaggtg ggcagtggct 23280
gcctctgccc tggaggcctg tgagggtcag ggtctgaggg tctgaggtgc actatgaccc 23340
gggggcactg cctggccacg gctgagactc gcagagggtc tgcagttccc acctgcctct 23400
cggaagctgc cctgggtcag ccgtcagtgg tgctccgcct tgggttttct attatcagaa 23460
agtcattgag caacagcagt gctgaggacg caggcagggc tgtgggcact gcaggggccg 23520
ctcccagtgt ccacacgcgt gctgggctct gccaaggtgt gggaagcctg tgtttcaccc 23580
tgaggttgtc ctggtgcccc tggtttggcc cctccccacc tcggggccct ggcgtgcatt 23640
aagggtggcg ggttcccata gcggcctccc tcagctccct ctctcttcac taggccacgg 23700
catatgcctc caaggacggg gtcctcactg aggccatgat ggacgcctgt gtgcaagatg 23760
ctgtccagca gtaccgacag aagatgcgct ggctgaaggc ggaggggcct gggcgcgggg 23820
tcgagcaccc cctatccgga gtccaaggcg agaccctcac ctcatggagc ctggccacgg 23880
acccctccta cccctgcctt gccggccccc gcacatttag gatatgctcc tggatgggga 23940
ctgggctgtg cccagggcct ctgtccccca ggatgtcttg tggtggcggt cggccgttct 24000
gccccccagg gcacccccctg ttgtaggcac tggctaggga ggggcaggcc tccttcctgc 24060
ccctcgagac actcttggga gatgcatttt ccgtctggct cacaggggga gggtgaggct 24120
ttgtacccca gcccctgccc aggccactgt gagggtgggt gctggctgag cccctggggc 24180
agaaggagtg gggcaggcgg ggtctttgtt ctcggctccc acagcagagc caggtgaggg 24240
ggggcctgcc aggactagac agaagtgggg cggcctgaac cctgcttcca gccatggcca 24300
ggggccacgg aacccggcag gggtgtctga ggccgccctg tcagctggcc ggtccaagcc 24360
tgtggctgga gctggtgtgt gtttatctaa taaagtccca caggtgcctc acc 24413

<210> 2153
<211> 24533
<212> DNA
<213> Homo sapiens

<400> 2153
ccggctgcgg cgcgtggagc tgctcccagc cgcgctcgag tcagactcgg gtgggggtcc 60
cggcggcggt agcggcggcg gcggtgcgag catgtcgtgg ctcttcggcg ttaacaaggg 120
ccccaagggt gaaggcgcgg ggccgccgcc gcctttgccg cccgcgcagc ccgggccgag 180
ggcgggggga ccgcggcttg ggagaccgcc ggcgcccaag gacaaatgga gcaacttcga 240
cccccacaca aaaaatagga ccaaggcggc gcgcgagctg gagcactcgc gtgagtgcgg 300
cggggcgggg cgggcgggcg ggcgggacgg gccggggaag cgggagccct ggccttgccg 360
ctcctcgctg ctgtcggcag ccacttcccg ggcgagactg cgcccccgga gcacccccg 420
ccggagccgt ctcgcgtgcc gggaggatcg gactctttcc gtcacccgtt tgcacctctg 480
cagctgtcag gagcgggtca ggtgcgaaaa gcggtgcgga ggtggcgctc ataggttaca 540
ggggtcaggg tctggggctg gccgtggtct tcagttaccg ccgagcgtgc gggatccttc 600
tgcgcttgcc gcctccacgt ggcacaggcc aaggcgtggc cagatgggta gatgggtttg 660
ttgggtggtt gctagcagtt tccacgtaac aagggaagcg tatttgagag ttacttgatt 720
ctaacgagac tagcagattt gcacttcttg ttggaagacg ttagcatttg cacggcgagg 780
tctgtgaagc acaggccagg ccgtgctgct cagcttgagt aaacccctga cccaaggccc 840
tcagggtgtg agcactgact gcaccttccc taagctcggg tctcttcccc cagccttcct 900
ttcccctgtg gctttaacga tttgtagcac gatgcagttc aaatggctag gagtctggaa 960
cgtagaaggt gctgaattca ttgaaagaat acagtggttc tcaactcttg tttaagccgg 1020
ggttctttct atttatttat atattgagac acagtatcgc cctgtcgccg aggctggagt 1080
gcagtggtgc gatttcggct ccctgcaacc tccgcctccg attctcctgc cgcagcctct 1140
cgagtagctg ggattacagc cgcgcagcac cacgcccggc taatttttttt tgtatcttta 1200
gtagagacgg gtttcaccat gttggccagg gtgctctcca actcctgacc tcgtgatccg 1260
cccgccttgt cctcctgaag tgctgggatt acaggcctga gccacagcgc ccagacagaa 1320
gggattcctt ttttttttttt ttttttttttt ttttgagatg agtctcgctc tgtcgcccag 1380
gctggagtgc agtgacgtga tctccactca ctgcaagctc cgcctcccgt gttcacacca 1440

09506082 - 091202

ttctcctgcc tcagcctccc gaatagctgg gagtacaggc gcccgccacc acgcccggct 1500
aattttgtag agatggggtt tcaccgtgtt agccaggatg gtctcgatct cctgacctcg 1560
tgattaattt tttgtatttt tagtagagac ggggtttcac tgtattagcc agggtggtct 1620
cgatctcctg acctcgtggt ccacccgcct cggcctccca aagtgctggg attacaggcg 1680
tgagccaccg catgccacct ttttttttt aagatgatgt cttgctcttt ggccaggctg 1740
gagtgcaatg gcgccatctt gtctcactgc aaaccgcaac gccctggttc aaagaattct 1800
gctgcctcag cctcccaagt agctgggatt acaggcacgc gccaccacgc ccagctaatt 1860
tttgtatttt tagtagagac gtggtttcac caccttggcc agggtggtct tgaccacctg 1920
accccgtgat ccacccgcct cgacctccca aagtgatgag attacagtcc tgagccaccg 1980
caccttgcca gcaggggttc ctttttagaa agaagatcat ttagggaatc cctggtgtga 2040
agcagatata aacagagttt ccctgtttaa ggagggatgg cctggtggta cttgtggttc 2100
catcctgtgc ccttccccgg ggtgctgggg aacatcctga gctgaggttt ctggccccgg 2160
ctgggtctca taaccccaga gggacattca ggtttgggcc caggcccagg ctaacatgga 2220
tagtcctagc tgggcaccac cgacagtgcg tgttctgttt tgaagagatg gggtcttgct 2280
ttgtcgccca gtctggcctt gacctcctgg gtaaaagccg tccaaccgtc tcagcctcct 2340
gaggagaggg gactgcaggc ttgctcggta atttttcttt tttcttttct ttttttcttt 2400
ttttttgac ggagtctcgc tgtcgcccag gctggagtgc agtggcgtga tcacggctca 2460
ctgcaagctc cacctcctgg gtacacgcca ttctcctgcc tcagcctccc gagtagctgg 2520
gactacaagt gcccgccgcc acgcccagct aatttttttgt attttttta gagaccggtt 2580
ttcaccatgt tagccagaat ggtctcgatc tcctgacccc gtgatccacc cgcctcggcc 2640
acccaaagtg ctgggattac agacgtgagc caccgcgccc ggctttgctc cgtaattttt 2700
ctgtgtgttt ttgagactga gtctggctct gccgcccagg ctggaatgca gtggcatcat 2760
ctctgctcac tgcaaccttt gcctttgggg ttcaagcgat tctcctgcct cagcctcccg 2820
agtagctggg atcacaggcg cccgccagca cacctggcta atttttgtgt ttttttacta 2880
gagacggggt ttcaccatgt tgtttaggct ggtcttgaat tctggcctca ggtgattcgc 2940
ccacctcggc ctcccaaagc gctgggatga caggcgtgag ccgctgctca tggccttcct 3000
cggtaatttt aacgatcagg ttaggatggg aatcaagggc tggacttcag ggcacctcgg 3060
aggacagcgg atgttggtga ctgactttct tgctgcaggc ttatttggag ggttcctttg 3120
tgtcctagtt cctgggggtt ttcacccgct aacttcactt agagattgaa acttctccca 3180
cttccagaag ctgaatcgta gtgatcagcc tgcggccccc tgcagtggta caggcctggt 3240
tgagcagcct caggccgcct ccccatagtg cagacctgtg cctctgagtt gctccagtcc 3300
tggcggcccc ggagctcctg acccgcagtc cgctctgccg gcgttgccag tgccttggtc 3360
tgccctctct gtggtggagc ggggcccggg gcagggtctc caggtgcacc gtggggagcc 3420
ctccatcagg cttttgtttc ctgtggattg tgttccaggt gtgggctctt tcattttgat 3480
cccttctctc cttcctggcc tcactgctgg cgggtgagag aggtttctcc ggagttgact 3540
gccccctttc cccgggtgcc ccctgccctg cccctctgcc tggtagcccc tctgcaagcc 3600
cggcccctcc cgacgctcct ggcttcctcc gtgccccttt cctggcagcg gggtcgccga 3660
gattcgcccg ttgctttgtc cttgctgctc tccaggcaaa cgggcggctc ctcctcaccg 3720
actgcctcct ctgtcccttg aggctatagc cccatgccgc ctcgttccca gagtctgccc 3780
tgacccctcc tccggcctgt ccttggaagt cacagcagta cattatccca gaactgtctg 3840
tgagcaccag cgctcgccct gcactccaca gagggggtgc ctggaggaga gcctcgtgcc 3900
ctgtgggtgt gaattcacgc gctgggacgc acgtccctgg cacagggtca caccaaagtg 3960
gtgaatgatt gttctcattc taataaccga gaggccacac gggcacctga cctgctcttt 4020
cccctctcct cctccccaga gtcactgggg gtgggaactg tcaatgagcc attttcaggg 4080
gagggagtgg cctcagctta atccagccaa aggtcccctc gggaggaaac aggcagagct 4140
cctcaccgtg acacccacgt tcctgtcact gctctgtggc aggaccctgg gggactgaca 4200
caccctcagt cccctcgggg tcagagtgag agtggttgag agcccggggt cgcttcagcc 4260
cttggcttcc cgagcttagc agccaaaccc gttgacctgg cactgtcttc cctgagaggc 4320
aggtcccggt ctcatctgtg ctctgttcac tggggccccc gaggttagct accaaggcgc 4380
ttcctgaaat gtgacgctga tgcccgtcag cccagttcgt gcctaaccac aggcccaagc 4440
agacccaccc caacaccaaa gcgtcgctgc ctctgtctaa atgcaacgag tgctccccac 4500
ggcacttccc cctgcgtcag tcacctccaa aaattacacc tgagctgaga acagacgctg 4560
ggctctagtt agtgacgtgt ttgctgcagt tgactctgaa ggcttaaaaa agtgagacgg 4620
gctgcgggag gaagagagac gggaacaacg caccaaccca ggagcatcgg gggtccctgc 4680
ctactttaca cgtctttctg tgttagaata attttttttt ttttgagacg gactcttgct 4740
gtctcccccg ctggagtgca ttgcttcgat ctctgctcac tgcaagctct gcctcccagg 4800
ttcacgccat tctcctgcct cagcctcctg agtagctagg actacaagtg cccgccgcca 4860
cgcccggcta attttttgta tttttagtag agacggggtt tcactgtgtt aaccaggatg 4920
gtcttgatct cctgacctca tgatccaccc gcctcagcct cccaaagtgc tgggattaca 4980
ggcgtgagcc accacgccct gctagaataa ttttttttta gagacggagt tgcgctctgt 5040
tgccccggct ggagtgcggt ggtgcgatct cggctcgctg caagctctgc ctcccaggtt 5100

09650082 - 061200

09520804.090201

```
ccagcaattc tccagccttg gcctccccag tagctgagat cacaggcgtg caccaccaca   5160
cccagctttt ttttgtgttt ttagtggaga caggatttcg ccatgttggc caggttggag   5220
attttatttt tcttaagtct cactctgtcc agctggagtg cagcagtgtg atctgggtga   5280
ctgtagcctc tgcctccggg gttcaagcca tcctcccacc tgagcctcag agttgctggg   5340
attacaggcg tgaaccaccg cttcccacta ggtttttgta tttttagtag aggttgggtt   5400
tcaccatgtt ggccaggctt tggtatccgt gtatcctaca cctgctctcc gtgccacatg   5460
cgcccgcagg ttacgccaag gaggccctga atctggcgca gatgcaggag cagacgctgc   5520
agttggagca acagtccaag ctcaaagtga gtggggccgg tgtgggcgag gaggccgggg   5580
cgcacatggg gttcaggcgt ggagattggt ggggctgcta ctggtgggta gggccagggg   5640
cgtgtacatg ggcagcagtg gggccagggc cgagcttggg cgcctcattt cacagaggga   5700
aacaagggga ggtgagagac gctgccacag agccgcccga gagggagggt cagtgttggt   5760
gagggcgtct ggtcgtcctg agggagggcc ggtgttggtg agggcatctg gtcgtcctga   5820
gggagggggt cttcttcaca ttctcacctc atttcttttc actcagcagg atttttttatt   5880
ttatttttatt ttatttttatt ttatttttatt ttatttttatt ttatttattt tgaaacggag   5940
tctcactctt gcctaggctg gagtgcaatg gcgcaatctc ggctcactgc aacctccgcc   6000
tcccgggttc aagcgattca tctgcctcag cctctggagt agctgggatt acaggcacgc   6060
gccaccacgc ctggctaatg ttgtatttta gtagagacgg ggtttctcca tgttggtcag   6120
gctggtctct aactcccgac ctcaggtgat ccacccgcct cggcctctca aactgttggg   6180
attacaggca tgtgccacca cgcctggcta atgttgtatt ttagtagaga cggggtttct   6240
ccatgttggt caggctggtc tctaactccc gacctcaggt gatccacccg cctcggcctc   6300
tcaaactgct gggattacag gcacgcgcca ccacgcctgg cctattttat tttattttga   6360
gacagagtgt cactctgtcc cccagtctgg cgtgcaatgg tttgatctcg gctcactgca   6420
acctccacct cccgggttca acctcctgcc tcagccttcc gagcagctgg gactacagga   6480
gcctgccacc acatctggcg aatttttgta tttttagtag agaaggggggt tcagcatgtt   6540
gtccaggttg gtcttgaact cctgacctca ggtgatccag ccactttggc ctcacaaagt   6600
gctgggatta taggcaagag cgatggcgcc cggcccactc agcaggattc ctagaatggg   6660
cacgagctct gccctcatca cagtccaaaa gtgagcacct gcctggagct gcccagaaac   6720
agccttgtgg ggtggggttg gtgtctgacc ttcctccccg ggggccttcg caggcttctc   6780
tgctggtgct tctgtgcctg tgggtctgga ttcctccagg gcctgatcct gggtgcagat   6840
gcagctggaa gccctgaacc tgctgcacac actagtctgg gcacggagtc tctgccgtgc   6900
cggagctgtg cagacacagg agcggctgtc aggcagtgcc agccctgagc aagtgccagc   6960
tggtgagtgc tgtgctctgc aggagtatga ggccgccgtg gagcagctca agagcgagca   7020
gatccgggcg caggctgagg agaggaggaa gaccctgagc gaggagaccc ggcagcacca   7080
ggccgtaaga gcgcaagagg ccgcgaggga ggcgcccggc tgcggggagc ggcctggggc   7140
aggactggga gctgggtgtg gtcccggggc actctggagt cagccattag agctgccctc   7200
ggaacggcct tgcacaaacg cctaagacct gtaaggtccc tcactgctga gccggacggg   7260
aggtccccgc gcctccccac gtttgtgtga ggctgatggc gcgtcggagt ccccggcgct   7320
ccgcccagtc ggcccagact gcagctcccg gctgagatgt gtctttgccg ccctcttctc   7380
cccagagggc ccagtatcaa gacaagctgg cccggcagcg ctacgaggac caactgaagc   7440
agcaggtgag ctcagcctcc cctgcgaggc gcctgcgtcc ctgagaacgt aggtggcttt   7500
gtgggaccag tcagtgggtc agaggccacg gggcaagaac gctggggttg ctgacggtgg   7560
gtgctagagc aggggaaact actcggacag acacgcacca gcacacgtgt acaggcacac   7620
atgcagatgt gtgcacacat gtacacggag acacaggcac ctgcccacac ggacacacac   7680
tcctcgcaca cacactcccg gcagacaggc acacacaccc ctgcacacat gggcacacac   7740
acacccctgc acacacgggc ccacacactc ccctgcacac atggggaaac atgggcccac   7800
acacacacac ccctgtgcgc acacacccct acacaggggc atggacagac acccgcaaac   7860
acacccccac acaacacggg cacgcacaca cacaccccgc cacaacacag gcacacatac   7920
ccctgcacac aggcctgcac atacacccccc acacaggggc atgctcacgc agcccgcaca   7980
cacacaggta tgcagacaca cccaaacaca catgggtccg caggcacaca ctcccgcatg   8040
gggcatgcac gcacccccca cacacacccg atcacacata ggcatgcaca cccctctgca   8100
cacatggggg cttacacacc cccccgcaca cgtgggcccg ctcacacagc ccacacacat   8160
acccccttcac acaggcacac accgccccgc acacacgggc ctgcacacac acccccacac   8220
gggcatgcac acgcccacac acacgggcgc gcacacaccc ggacatgcac aaacacccac   8280
ctgcacacac gggcacaccc caccacacac acacacaggc atggacacac gcacaccccc   8340
tcacacatag gcacacatac acaacccagg cacacacccc cttgcacaga cgggcacgca   8400
cacagtccca cacatgggca cacgcgcaca cccccgcaaa cacacacacg ggcacgtgta   8460
cgcacccccа ctcacagtgt gcctcataca tacgggcacg cacctgcaca cgagggcaca   8520
cccccacccc ccacccccac acacccccgc acccatgggc acacacacat tactgcacgt   8580
gagggcatgc acacacacgc cctgcacacc cccacacaca gacccccttgt gtgggttcca   8640
cagcagcggc tctccaggca cgacaagcct ccttgtctcc cacccgggcg cccagctggc   8700
agtctgggag gttctgcttg ggagggctgg tcagtggcgg cgggcgggtc tctgggtcta   8760
```

tgagaaaagc ttgggtgaca tctgttccct ggtccttagg gaccgtcacc ttcagtcctg 8820
agctcgcagg cggggttcac atgttgcctg ttgtgggcat tgtagcttta acgtttaatt 8880
ggcggaagac agaagcttcc ttaagcccag cctgaatcag ggcagtggtg ttgggaggtc 8940
ggcccgcggt ggcccttgtc agggaagcca cagtgggggc tgtttctgcc actggggagt 9000
ttgggaccct gaacccatcc cctcagtgac tgccgtccca gccgatgtca cccgtgtctg 9060
tgtcagggtg cggcgtctgc aggtccccag gtgcccagga cgcttggagt tctgtggtcc 9120
tggggcggac gcaacctctg gattggtgtt gagcattttt ctggttttaa aggcttttct 9180
ctttttctgc ggcttcttct cagcaacttc tcaatgagga gaatttacgg aagcaggagg 9240
agtccgtgca gaagcaggaa gccatgcggc gaggtaggct gtctgctctc ctggctgggg 9300
cggaggtggc gggggctgct tgtggacccg gcgtgcactc tgagcctgag ttctgccgcc 9360
cggcccctca tagctaccag tgcagtgggc gaggcctgct ggggctccgc ggggtggggc 9420
tgcctctcgg aagacacctc tgtctgcgag tggacgccag gatctgttca gggagggcag 9480
gagctgcttc acttcatggg aagtacaggg gcctttgttt ttttttgag acggagtctc 9540
gctctgtcac ccaggcagga gtgcaatagc acgatctcag ctcactgcaa cctctgcctc 9600
ccaggtttaa gcaattctcc tgcctcagcc tcccgagtag ctgggattat aggctcccgc 9660
caccacgccc agctaatttt tttgtatctt cagtagagaa agggtttcac tgtgttggcc 9720
aggctggtct tgaacttctt gatctcatta tccgcctgcc ttggccttcc acagtgctgg 9780
gattacaggc gtgagcctct gcgttctgcc tagaacatgg gtctttactg tcctggtttc 9840
agtggggatc acaggtattt ggtgccatgt ggcatttgtt ggcgagtgct ccaggcaaac 9900
gtctgtcacc actcttcact gtgggtgggc ttgtggcgag gtgtgtgcgt ttaatgttca 9960
gtagccaggc acgtggcacg tcacgcgtgt ctgagttctg acagctgtgt ttctgtgtga 10020
gggggggcttc cttcagaact ccgcgttctg gtttttttgct tcaaagagct cgtcctgaga 10080
agttgcctag gcctctgggt cggatttctg ccctaatcca tgggcagggc cggcctgtgg 10140
cgctgtccct accaaggtct gtgtgtgtct gtggcacggg cctgtccatg gactgggctt 10200
gtccgtggag tgggtcggtc catggcctta gcctgttggt ggcgtgggcc ggtccacggc 10260
atgggcctgt ctgtggcgtg ggccggtccg tggtgtgggc ctgtccgtgg ccttagcctg 10320
ttggtggcgt gggccggtcc gtggcatggg cctgtctgtg gcgttggtct gtccgtggcg 10380
tgggccggtc cgtggcgtgg gccggtccac agtgtgggtg gaggtggacg tgctgcactg 10440
catggtgctg agctgcccta cctctctggg gcagccaccg tggagcggga gatggagctg 10500
cggcacaaga atgagatgct gcgagtggag accgaggccc gggcgcgcgc caaggccgag 10560
cgggagaatg cagacatcat ccgcgagcag atccgcctga aggcgtccga gcaccgtcag 10620
accgtcttgg agtccatcag gtgagcactg ccgaggcccg ggccggccac agatggagcc 10680
ccgcaggtgt gagtcgctgg tcccagggcg ctctccagct cttccaggcc tggccgccgt 10740
aggctgactc cttggtgggg gcactgcctc ctgtcctggc aaggccgtgc cgccatgtca 10800
gggcctcacc ctcaacctgc tctcgctgcg tggtacggat cttcgtgtcc ttcctggtca 10860
caccactgct ttccccgcag gacggctggc accttgtttg gggaaggatt ccgtgccttt 10920
gtgacagacc gggacaaagt gacagccacg gtaaacatac tcataaaaca gggctggcag 10980
gtggctgaga ggcagcatgt gggggcctcc tggagcccca ggtcctgtcc ctgccggctc 11040
tgcacagccc tgtagctctc ccagcacaga gcaaacccac gttgtacctg ctgggctcgg 11100
ctgctcctcc ctccttgagc tgggagaaaa aaatgcagtt gccagcctgg gccacacggt 11160
gagaccccat ctctacgaag aataaaacat tagctgggtg tgatggtggc gcctgtggtc 11220
ctgctactcg agaggctgag gtaggaggat cacttaagcc caggaggttt gggctgcagt 11280
gagccaacat tgcaccactg cactccattc ttggcgagag aataagacct tgtctcaaga 11340
aaaaaatggc caggcggtag tggctcaggc ctgtaatccc agcattttcg gaggcggagg 11400
tgggcggatc acgaggtccg gagatcgaga tcatcctggt aagagtgaaa ccctgtctct 11460
actaaaaaaa agaaaaaaaa agaaaaaaat tagctgggtg tggtgacatg tgcctgtaat 11520
ctcgggaggc tgaggcagga gaatcacttg aacccgggtg gtggaggttg caatgagtcg 11580
agatcccgcc actgcacccc aagaccagca tgaccaacat ggtgaaaccc catctctgct 11640
aaaaatacaa aaattagcag gccaaggtgg cgtgcgcctg gaatcccagc tgcttgggag 11700
gctgaggtag gaaaattggt tgaacccagg aggcggaagt tgcagtgagc tgaaaccgca 11760
caattgcact ccaacctgtg gaagaagagc gaaactctgt ctcaaaaaaa caaacaaaat 11820
aaataagcca ggcctggtgg ctcactggtg taatcccagc actttgggag gccaagacgg 11880
gtggatcact tgaggtcaga agttcatgac cagcctggcc aacatggtga aaacccatct 11940
ctactaaaaa tacaaaaatt ggccgggcct cgtggcacag gtctgtatta gctgagtgtg 12000
gtgacctgag cctgtaatcc cagtcactcg ggaggctgag gcaggagaac tgcttgaacc 12060
tggaaggcgg aggttgcagt gagccaagat ggcaccattg cactccagcc tggccacaga 12120
acaaaaccct ttctctaaaa acaaagtcaa gggcgcatta agcagctcct tcatgttctc 12180
aggtgacacc gtctcaccaa catggcaaca ccacctgcaa cattcaccgt cacactgacc 12240
aggccaccgg caggtgctgc agtcacagca gtgggcgccg gcaccacggc agagcaagtg 12300
cccactcagt gccgggcacc tactgtgtgc tgggcggggt gggggggacgg aggacacagc 12360
catgtgcgac ctggggcgcc accacagcag gccagagcct gggcacaaaa gagcgaggct 12420

09509082 - 091204

ttaaacgaga gaagaatctg aacttcaaac tctcagggtt ttattccgaa taacgaaagt 12480
ttttgcgaaa tggagtcggg ttcgctttct gggtctttga ttttttttt tttgagacag 12540
agtctcactt tcaagtgtgc tgctcaagtg cagtggcgcg atctcgactc actgtcagct 12600
tcgcctcttg ggttcacacc attctcctgt ctcagcctcc ggagtagctg ggactacagg 12660
tgtctgtcgc cacgcccggc taatttttt gtatttttag tagagagagg gtttcatcct 12720
gttagccaag atggtttcga tctcctgacc tcgtgaatcc gccgcgtggg cctcccaaag 12780
tgctgggatt acgggcgtga gccaccgtgc tcagccacag ccagctaatt ttttcatgtt 12840
tttagtagag acgaggtttt tccaggttgg ttaggctggt cttgaactcc aacctctggt 12900
gatacgccgg ccttggcctc ccaaagtgct gggattacag acctggccag cctaaacgat 12960
ttttaaaaca agttagagat tttgggttag tcttgttttc caggaataaa gtaccatttt 13020
tagtggccaa ggatgtacca gagggtgtgg ccctgtgaca tccagctggg tctgcccagg 13080
gccccgctca gcgaccgagg ctttctagga tttatgctgc cagttgcaga gaaaatggcc 13140
ctgagtgagg gcgttatgac tgccccacct gcctcctgta accgcgtggc tgtgggattc 13200
ggggctggga attcgggttc ctgtggggcc agcacacggc cctgtgcttc tccctcaggc 13260
ggagagaggg tgggggcagc cccgtgcgtc tcctgctcta ggagggaggg acggtggggg 13320
ccggtgcgcc agtgcggtgt ctctgctgca ggtggctggg ctgacgctgc tggctgtcgg 13380
ggtctactca gccaagaatg cgacagccgt cactggccgc ttcatcgagg ctcggctggg 13440
gaagccgtcc ctagtgaggg agacgtcccg catcacggtg ctggaggcgc tgcggcaccc 13500
catccaggta gcggcgcagg cctggccctc cctgagtgca gttcctggct gagtcccttc 13560
tgccccacga gcacagccca cgcacaccct cccgtccctt ccctttcccc ggataacagg 13620
cacccgcacg ctgcttcacg ggtgggtttt cctgtctggc gctgtacctt aggggtctgc 13680
atcagtgaga cccttccccct gtctgcctcg gtgtcccttg ctcagggctc ttgatggggc 13740
ctgggagcac atcggggtcc ttgcaagacc cgggacttgg gtgtgcggcc gtctgtcggg 13800
gaagctgcta caggccatgg cgtctggtgg cctccctggg gagccgcgcc gcttgccagc 13860
ccctgaggtg cctgctctcc acaggtcact gggtaggtgg ttaagaaaat aaaagccaat 13920
aaggaaccgg aaaatgcccc aatcccagca atagcctcct ggtctcccgg cggggcaggg 13980
ttccagctcc gggccggtcc tggctgtgct ttggggcagc tccgtttctg tgtgttaccg 14040
agcatgtgtg tgcgttggtg gctgttccgt ggctgtggca ggtgacccaa tggtgcttcc 14100
ccttcccctc cggcaggtca gccggcggct cctcagtcga ccccaggacg tgctggaggg 14160
tgttgtgctt agtgtaagtc ggtgtgcctg ggaccgggga ggtgcaggga ggggaccccg 14220
gagctgggct gggctgtggc ccttgctagc gctcgtggtg gcgcccagga gcttttgggt 14280
cctgagatgc aactgcttgg actgtgccgg ggatagatag gctgcccacg agctgggcgg 14340
cttcctgagg agcagagtcc gcacccgggc attcccgcag cccctgtcac cgaggcttcc 14400
gtgggtgcag agtgtctccc ccaaaccccc gtcttccccg gcagcccagc ctggaagcac 14460
gggtgcgcga catcgccata gcaacaagga acaccaagaa gaaccggggc ctgtacaggc 14520
acatcctgct gtatgggcca ccaggcaccg ggaagacgct gtttgccaag gtgagagcgc 14580
ctggctgaac aggtgggcca ggggccgctg gggtctcacc tgcctgcagg tgtctggggg 14640
cctcagccgc ctggggaatg gaccccccct aggcctttgc ctaccctcgt gtaggctcag 14700
ggtgctggtg tgggcagcag cgcctcccat cttccaggcg ggggacgtct cctgtctggc 14760
aggctgtggc ttccagacag ggacacccgg caggggctcc acactccagg tggagtgtgc 14820
aggctttgca gaggcagagg gaacatctgt tctgtctccc ctcactcttc ttgtccagaa 14880
actcgccctg cactcaggca tggactacgc catcatgaca ggcggggacg tggccccat 14940
ggggcaggaa ggcgtgaccg ccatgcacaa gctctttgac tgggccaata ccagccggcg 15000
cgggtgagac gtccccacag catgcaccag gcccttggct gcggcccagc aggctgcctt 15060
ctgggaaggg ggtccaggtg tctcttgggg accctgtctt tctgcagctc tgtccttgtg 15120
gccacgcagg aggcccaatg gagggtccct cggagggaaa gtcccctgag tgtggaccct 15180
ggtggacacg aggtccccag cgtgtggagg ctgccagtgg gatacttggc tcagggcaga 15240
agggaggtgg gtgggtgcag ggggagaggg gtcttcacag ctgcagggga ggctcctcca 15300
cagccgccct ccccccaaca cgcctgcagg tgggcgtggg cactggttgc cttttctaga 15360
accatttgaa agttagctga agacagcatg gcacactccc ttcaataggt cccacagtga 15420
ccccgcgcag ggcacagccc gggcaccctt gtggcctcgg ctgtcctcgt tggaaccacg 15480
atcctcatgg ttggcaccct cccctctggc ctttgacctt tcactttaga agacctgtcc 15540
ctgcgccagg cgtggtggct cacggctgta atcccagact ttcggaggcg gaggcaggca 15600
gatacgaggc caggagattg agaccatcct ggctaacttg gtgaaacccc gtctctacta 15660
aaaatacaaa aaattagcca ggcatggtgg tgggcacctg tagtcccagc tactcaggag 15720
gctgaggcag gagaatggcg tgaacccggg aggcagagcc tgcagtgagc cgagattgcg 15780
ccactgcact ccagcctggg agacagagcg agactctgtc tcaaaaaaaa aaaaaaagac 15840
cctgctcctt gcgtggactc ttgagcactg cactgggtcg ctgtgtgggt gaaacctgca 15900
gggcggaggc tgttgcccca tgtgtggttg gctggtgtgt gggtgaaacc tgcagggcag 15960
agtctgttgc cccctgtgta gttggtttcc cactgccttc tgaggctgag acgtggtcag 16020
ctgcccagag gccaggctga tcggcttctg tcgagtccag gacttagggc tcctgatggg 16080

09650039 - 062204

09508820 - 042201

```
gcagagcctg accccgtggg gatctgcctg cctggcctgc tcctgccgcg gccggacgct  16140
gctgtgggct gctcctggcg tcactctcgc cttgcttggc ctctctctcg ttcacagcct  16200
cctgctcttc atggatgaag cggacgcctt ccttcggaag cgagccactg tgagtgtcac  16260
taagcctctg tctggccaca ggagggtggt cgggtgggcg cggctgtcat cctgggccag  16320
gctgcagccc ttaagctggc ttgcagtggc gcaatcttgg ctcgctgcaa cctctgcctc  16380
ctgggttcaa gctgctctcc tgcctcagcc ccctgagtag ctgggattac aggtgtttgc  16440
caccacacct agttaagttt tttgtatttt tagtagagat ggggtttcac catgttggtc  16500
aagttggtca agaactcctg atctcaaatg atctgcccac ctggcctccc aaaatgctgg  16560
gattacatgc gtgatccacc acgcccagcc atacagttat tattttaata cagggtgtct  16620
gtcgcccagg ctggagtgca ggggcgacat ctccagctca agcagtcctc ctgcctcagc  16680
ctcccgagaa gctgggattg cagaggcaca ctaacacgcc cggctaattt ttttgtaacg  16740
ttagtagaga tggagtttcc cacattgtcc aggcagggct caaacttctg aactaaagaa  16800
attcaccggc cttggcctgg cacagtggct cacgtgtgta atcccagcac tttgggaggc  16860
caaggcaggt ggatgacgag gtcaggagtt caagaccagc ttggtcaata tggtgaaacc  16920
ccgtctatag taaaaataca aaaattagcc gggcgtcgtg gggcacgcat gtaatcccag  16980
ctgctcggga tgctgatgca ggagaatcgc ttgaacccag gaggcagagg ttgcagtgag  17040
ctgagatcgt gccactgcac tccagactga gagacagaac aagacttcgt ctcaaaaaaa  17100
aaaagcgaga gatttgatcg ccttgacctt ctgaagtgct aggattaaag atgtgagccc  17160
tcagtcaggc ttttttttta aatgtatttt ttatttttta gcaattctca tgcctcagcc  17220
tcccaagtgg cttgagatta caggtgtgcc accatgcatg gctaattttt gtatttctag  17280
tacagatggg gtctcaccat gttggccagg ctggtctcaa actccctacc tcaggtgatc  17340
cgcctgcctc agcctcccaa aatgctgggt tacatgcttg agccaccgcc cctggccctg  17400
gtcaggattt tgagtttaga tccatgaaag tgtcgccacg tccctgctcc ctgcaggagg  17460
gaggcctgtg ggactttctg ctctggctgt ttacaaggct ttgcttctgg tgcctaaggc  17520
tggaaccttc tctctgcagg aggagataag caaggacctc agagccacac tgaacgcctt  17580
cctgtaccac atgggccaac acagcaacaa gtgagggagc ccctcgggtc ctgagccccc  17640
gggcagggct gtgcagccgt cgcccttggt tcccactgag ggtccctggc tcacagtgct  17700
gggcaccagc tgtggcctca gtgtgcccac ctcagatgtc ccctgggaac ggcccagctc  17760
gggacagcac ggggtgtcat tgaggaacat gcaggggcct cccgggcaga gctggggtca  17820
gtcctgtctt cacggccctg tgcgccgccg ccccagcttg caggtccctc tgcccctaga  17880
tttctgcggt cctgtgcctg caagggaggt ggtctgattg ctgccgccca gaggtcccca  17940
gtagggtgac cggccctatg tccaggctcc ctcttccctc ccaaatccct taattttgag  18000
ttttcttggt ctcctgggcc cctccagccc cagtcacgtg tcacacggag gatcaagtcc  18060
tgctggtcgg ccgtggctga ctcttcaggc acgttgggct cctgggtcag ctgctgccgt  18120
tcgacgctcc ctggagccct gactcaggtc cttcccagag aggcaaggct ggggccctgc  18180
tgagcctctg ctgaacccgg gcccccgagg tcctgcttct ggctcgcatg gccataatct  18240
tgacagggac tctgggtccg catccctgct cccagcacag cgggctcagg tagcaggagg  18300
gagtggtgtt cccggcactg cctatcaggc tgggcgacgg tcagcgggga agtaccacac  18360
ggggcgagaa cagaggcccg agaagccggg cgggggggcag ctgggcgtgg tggggcaggc  18420
aggcgggtga ccagggctgt ggcgcgttct ccccatgttt cctgtgctca caagctgccg  18480
ctttagattc tcccaaaaag tctccccgag ggggctgagg agccgttttg ccctcggcga  18540
tctcagctgg cagccccagc gtttccttcc ccatccctgt cctacagatt catgctggtc  18600
ctggccagca atctgcctga gcagttcgac tgtgccatca acagccgcat cgacgtgatg  18660
gtccacttcg acctgccgca gcaggaggag cgggacgcct ggtgagactg cattttgaca  18720
actgtgttct taagccggcc acagaaggaa aacggtgagt gtcccgcctc acccggcccc  18780
caatccaggc accatatggc atgggtgtag gccagctgcc tgtcttccgg cctccacctc  18840
atggtgtggg gtccgcggcc ttggctgcct cacttgggaa ctccttcccc aggcgcctga  18900
agctggccca gtttgactac gggaggaagt gctcggaggt cgctcggctg acggagggca  18960
tgtcgggccg ggagatcgct cagctggccg tgtcctggca ggtgagtcag gctccggcac  19020
gtccacccag acgggacccc agctgctgtg gagatgctca gttgcgccag gcctgtccca  19080
gcaccggtgt catgtgggag cttctgttga ggggttttca gtgcacagac gtgacacagg  19140
gccccctgcc tcagtcgggc cactccacgc agcagcgtgc acctgctcgt gccctcagga  19200
gggtggggcc atgttggttg ctgacagtca cacggggctc tctggaagcc agtccagcat  19260
cccaggtgcc cgggctctgc tgggtgtggt gggaggtttc tggctctcat cttggccaac  19320
aggcacctcc tagagggaat ggtcgtcagg acaggccccg tgtgagttgg gtggtggggg  19380
tggagggacg ttgtgtttcc tggaccaggt cccttggctt ggtcctgttt gacgggttca  19440
gacacacggt gggactggcc tccgattgtc ccacagttag ttgttcctcg gaggcacccc  19500
tcctgctgct ccttggatac tccagggccg aggagccgag actcactgga gtgtgggcat  19560
ggccatccag agagctctga tcaggccggg cgcggtggct cacgcctgca atcccagcac  19620
tttgggaggc tgaggcaggc atatcacggg gtcagattga gaccatcctg gccaatatgt  19680
cgaaaccccg tctctactaa aaatacaaaa attagctgag tttggtggtg catgcctgtt  19740
```

09/500,203 - 02/09/2000

atcccagcca cacgggaggc tgaggcagaa gaattgcttg acccggggag ttggaggttg 19800
caatgagcca agatcgcacc accgcactcc agcctggcca aagattgaga ctccatctca 19860
aaataaaaga aagctttggt ctttgggggt tgctgaaaaa gcaaaaccag gtctgtgggg 19920
tagaaggcgc cctggccaca cacaggcatt gccgcctctg gggtccgcag agtctgtgtg 19980
acaacctggt cactcgatct agcagcgtat ttgaatgaat gagtgacagc ttaatgaagt 20040
agccaagtac cttgatttga acgtaggagc cggggtatgt agggagctgt attagtcagt 20100
acaggctggg ttatgccgct gtgacaaaga gtcccagatc tcaaaccccg tccttgtggg 20160
tcagctgagg tctctgttcc aggccgtccc cacttggaac caggtctgtt tccacaactc 20220
agaaagtgga ggctgggtat ggtggtggct gacgcttgta ttcccagcat ttggggaggc 20280
caagtcagtc agattatttg aagccagggg ttcaggacca gcctggaaag caaggtgaga 20340
ccccatctct acaaaaaatg aaaaaattgg ccggacctag tggcacatgc ctgtaatgcc 20400
agctgcttgg gaggctgagg tgggagggtc acttgagtcc aggaggcgga ggctgcagtg 20460
agctgtgatt gtgccactgc actccagcct gggttacaga gcaagaccct gtcttaaaaa 20520
ctgagaataa tttggaacaa gcccggtggc tcactcctgt aatcccagca tgttgggagg 20580
ccaaggagag aagatcactt gaggtcagga gttcaagacc agcctggcca acatgatgaa 20640
ccccacctct acaaaaaata cgaaaattag ctgggtgtgg tggtgggtgc ctgtaatccc 20700
agctactcag gaggctgagg caggagaatt gcttgaaccc acgaggcaga ggatgcggtg 20760
agctgagatc atgccactgc actgtagcct gagggacaga gtgagactgt ctcaaaaata 20820
ataataagaa gaataataat ttgggctggg cacagtggca catgcctgta atcccagcac 20880
tttgggaggc cgaggtgttg gatcacttga ggtcaggagt tcgaggccag cctggccagt 20940
gtgccgagac ccccacctct actaaaaata caaaaattaa ctggacgggg ccgggtgtgg 21000
tgacttatgc ctctaatccc agcactttgg gaggccgagg tgggcggatc acggggtcag 21060
gagttcaaga ccagcctgga caacatggtg aaaccccatc tctactaaaa aataaaaaaa 21120
ttatccaggc gtggtggctg gcgcctgtag tcccagctac tcaggaggct gaggcaggag 21180
aatcgcttga acccgggagg tggaggttgc agtgagctga gatggtgcca ctgcactcca 21240
tcctgggtgt cagagcgata ctccatctcc aaaaaaaaaa aaaaagaaag aaattaacct 21300
ggtgtggtag caggcacctg taatcccagc tgctcgggag gctgagtcag gagaattgct 21360
ggaactcagg aggcagaggt tgcagtgagc taagatcacg ccacagcact ccagtctggg 21420
cgacagagcg aaactgtctc aaaatataaa tgataacagt aataatttgg cttggcacgg 21480
tggctcttac atgtagcatt ttctacacat aagattatgt cacctgagaa caggtgattt 21540
tacctctccc ttttcagttt ggatgacttt tctttttctt gtcccatatc tctggccaga 21600
gcttccagcg atatgtggaa tagaagtggt cagaattctt gcttggttct ttctcagagg 21660
aagctttcag tttttcacca ctgagtatgt tagctgtgga cttgtgatcg ctggccttct 21720
ttgtgtttag ggcatgttct tcaatcctgg tttgttaatt ttttttgttt cttttctttt 21780
cttttggtgg ggggaccagt ctcgcttttg ccgcccaggc tggagtgcag tagagacagg 21840
gtttcaccat gttggccagg ctggtctcga actcctgacg tcaggtgacc tgcccacctc 21900
agcctcccaa agtgctggga ttacaggtgt gagccactgc aaccgaccag ttgaattttt 21960
ttttttaat cataaaagtg tgttgaattt tgtcaaatgc ttttcctgca tgagatgaga 22020
gggtcatgtg gtttccttcc tccactctgc taatattgat tgattttcat atattgaact 22080
atccttgcat tccaggaatg aatcctgctt ggttagggtg tagagtcctt taactatact 22140
gctaaattcg ttttgctggc attttgttga ggactttccc agtgaggctc atcagggata 22200
ttggcctgcc atttctcttg tggtgtgttt gtctggcttt aatatgaggg taatgctggc 22260
ttcctaggat gagtgaggaa atgttcttca atttgtccaa gagtttgagg agtggtactg 22320
attcttctta atgttttgtg aattcacatg tgaagaaatc aggtccaggt cttctctttg 22380
acctttttata gcttgaagat cttaggttcc cagaaaaatt gcaagggtag cacagagagc 22440
tcccgggccc ggggccttcc cacatggtga acatcatgtg tcactgttgg acccacccgc 22500
gaccaggttt tgccccagaa tcccacccag gaggccacgt gacatttagc tgtcacttct 22560
ggtgggctcc tgccaggtcc cgtgcttcct ggaggggtgg ccctgtgagc atctgcgtag 22620
cccctctcct ctgctgggcc ctgggtgacg tgcagccact cgggtggacc ctgagggtcc 22680
ctgcacctgt ttgccctctc ttgggtgggc tcaagaccaa aaatgatgtt gagcagtcct 22740
gggcccctga gccacagtgg cggtgcggct ccggtcagtg tctcctgcgc tcccgggccc 22800
ccgacccaca gtggcggtcc ggctctggtc agtgtctcct gcgctcccgg gcccccgacc 22860
cacagtggcg gtccggctcc ggtcggtgtc tccccacaca gtggctcttg gcgaggggtg 22920
ggcgctggca gaggggacgg gcaccacgtg gtcatcccca tgacaggttc tgtcatggtg 22980
acagtgttgt gggaggatgg tgtgctgctg cccctgcacc ccgtgagatg aatcctgcct 23040
ctgggaggta cagctgggac ggggcgaggg acccactcag ctgtccagga agggtcccct 23100
gccctgtgct tcctccaggt gtcctggtgc actcctgagc acggcaccta gtgggggtcc 23160
ccacaccctc accctgaccc atgggtgcct ccccttgggg actccacgcc cttcgctggc 23220
actgagatgg agagcgacct gtccgtggca gaagggctgc tgcacctgag gtgcctaagg 23280
cgacaccaag ggccacagcc ccagtagctc cagcctccgt gtgctcaatg ccaagccctg 23340
tgcccaggag gacagggaaa tggaggcaga ggtggccttg atgtcccaag gtgggcagtg 23400

gctgcctctg ccctggaggc ctgtgagggt cagggtctga gggtctgagg tgcactatga 23460
cccgggggca ctgcctggcc acggctgaga ctcgcagagg gtctgcagtt cccacctgcc 23520
tctcggaagc tgccctgggt cagccgtcag tggtgctccg ccttgggttt tctattatca 23580
gaaagtcatt gagcaacagc agtgctgagg acgcaggcag ggctgtgggc actgcagggc 23640
cgctgccagt gtccacatgc gtgctggctc tgccaaggtg tgggaagcct gtgtttcacc 23700
ctgaggttgt cctggtgccc ctggtttggc ccctccccac ctcggggccc tggcgtgcat 23760
taagggtggc gggttcccat agcggcctcc ctcagctccc tctctcttca ctaggccacg 23820
gcatatgcct ccaaggacgg ggtcctcact gaggccatga tggacgcctg tgtgcaagat 23880
gctgtccagc agtaccgaca gaagatgcgc tggctgaagg cggaggggcc tgggcgcggg 23940
gtcgagcacc ccctatccgg agtccaaggc gagaccctca cctcatggag cctggccacg 24000
gacccctcct acccctgcct tgccggcccc tgcacattta ggatatgctc ctggatgggg 24060
actgggctgt gcagggacct ctgtccccca ggatgtcttg tggtggcggt cggccgttct 24120
gccccccagg gcacccccctg ttgtaggcac tggctaggga ggggcaggcc tccttcctgc 24180
ccctcgagac actcttggga gatgcatttt ccgtctggct cacaggggga gggtgaggct 24240
ttgtacccca gcccctgccc aggccactgt gagggtgggt gctggctgag cccctgggcg 24300
agaaggagtg gggcaggcgg ggtctttgtt ctcggctccc acagcagagc caggtgaggg 24360
ggggcctgcc aggactagac agaagtgggg cggcctgaac cctgcttcca gccatggcca 24420
ggggccacgg aacccggcag gggtgtctga ggccgccctg tcagctggcc ggtccaagcc 24480
tgtggctgga gctggtgtgt gtttatctaa taaagtccca caggtgcctc acc 24533

<210> 2154
<211> 490
<212> DNA
<213> Homo sapiens

<400> 2154
atgtcaacta ctgactagaa ctggtggaaa aggttgttta ctgaaactgc gaggaaggta 60
gactttaaaa tgcaggacaa agactgaaca tactgatata ctgattcttt gaagggaagt 120
ttagaactca ttgtatctaa cattattcag gcttaaaaca gtttccaatc cagtgggaaa 180
agtcactcca tatattccgt gaagtcaacc agttccatca aggagaaagt cagggccgct 240
gggagcgcgt ggaccgtggg ctccggggcg gcgcctgccc gggcaccccg gccccgtcca 300
cgccccgcaa gaggagctcg ctggccccgc cacgcgggaa ggggtcgccc cggggtcttg 360
ggcgggaggg ccgtgcgggc tgcggagaca ccgaggaggg gaggcgcctc tcctgagctc 420
ttggcgcagc gaccccaggg cgccgactca tcgcggaagg gctcggcttg cccgggcgcc 480
ggtgccgcct 490

<210> 2155
<211> 318
<212> DNA
<213> Homo sapiens

<400> 2155
aactggtgga aaaagttgtt tattgcaact gcgaggaagt tagactttaa aatgcagaac 60
aaagactgaa catactgaca taccggttct ttgaagggaa atttagaatt cattgtatat 120
aacattattc aggcttaaaa tagtttccaa tccagtggga cgagtcactc catataattc 180
tgtgaagtca accattccta tcaaggagag agtcggggcc gccgcgagcg cgtgaaccgt 240
gggctccggg gtggtgccga cgcggctgcg ggccgggact gacgttgcgc cgggttcgag 300
tactcccctc cggagttt 318

<210> 2156
<211> 3241
<212> DNA
<213> Homo sapiens

<400> 2156
ttttgatgat gagctcctag cttcaaagtc aggacccagc ggggctccac gaaagcctgg 60
gcgacccagc cactgggcct aagcctgacc tgctgcaccc ctgcctccct ccacagttgc 120
cgaggtactg tctgaatgcc gcctgctcgc ctacatatcc caggtgccca cgcagatgtc 180

09550830 - 062704

cttcctcttc cgcctcatca acatcatcca cgtgcagacg ctgacccagg tgagaggccc 240
cggcagacac acagcaggga aggtcgattg gaaaccactt cctttgtcct ggtgcccagc 300
aggtttctgt cccccactcc agaagtgcgt ctctggagac ccagctcttc tgaggactgt 360
gctcaggagg aatcagtgtc ccattgtaca gacagggcct aaggaaggag ggctcgcaag 420
tgccctcagg tcacaggctg acttgcaggc cagtgctctc cccgcctccc ccatgtccac 480
gtccctcaca ccttctgccc tgctgggctt tggaatcgga cctgaggctg cccaactccc 540
tcactgaata gtcatgcagc cttcccttct ctgagcctcc tgcccctctt ttctagagtg 600
agggtgatct tagcacctct cagaggtggt ctttggttcc gttctgaggt gaagcaccag 660
gtgggagtgc atggtgagtg gggcagaact ctttccccac cgaggcgcgc aggctagtgc 720
tgaatggcac ttctgaagcg ggataaccgc cccaacacac gcacccagcc ctgcctggga 780
cggaccttcc ggaaggagtg atgcttgagc ccaggtctgg acagggacag gtgttgttgc 840
ctcaggtggg gtgggaggtg ggcgtgggga agaggaaggt gctcagtcag gaaactgggg 900
ctgctggggg ccccccttccc ccagtcctat ctcacctctg tgcagggaga gctctgtggg 960
tggcccgagg cctggggcca ctctcctccc tgcctgatgg ctacccaggt tcaccagggg 1020
ccactggggc tcccaccagc ccctgaccct gtgggcctgt ggccttgcag gagaacgtca 1080
gctgcctcaa caccagcctg gtgatcctga tgctggcccg acggaaagag cggctgcccc 1140
tgtacctgcg gctgctgcag cggatggagc acagcaagaa gtaccccggc ttcctgctca 1200
acaacttcca caacctgctg cgcttctggc agcagcacta cctgcacaag gacaaggaca 1260
gcacctgcct agagaacgtg agtgccccac cctcaagggg gtgatgggtg ggccgcggac 1320
ccagggcctc tcagaggggt gtcccggtgc tgggcttgac ctgggtcctc caggcgcccc 1380
ccagcccctc cttctttgcc cagagctcct gcatcagctt ctcatactgg aaggagacag 1440
tgtccatcct gttgaacccg gaccggcagt caccctctgc tctcgttagc tacattgagg 1500
agccctacat ggacatagac agggacttca ctgaggagtg accttgggac aggcctcggg 1560
aggctgctgg gccagtgtgg gtgagcgtgg gtacgatgcc acacgccctg ccctgttccc 1620
gttcctccct gctgctctct gcctgcccca ggtctttggg tacaggcttg gtgggaggga 1680
agtcctagaa gcccttggtc cccctgggtc tgagggccct aggtcatgga gagcctcagt 1740
ccccataatg aggacagggt accatgccca cctttccttc agaaccctgg ggcccagggc 1800
cacccagagg taagaggaca tttagcatta gctctgtgtg agctcctgcc ggtttcttgg 1860
ctgtcagtca gtcccagagt ggggaggaag atatgggtga cccccacccc ccatctgtga 1920
gccaagcctc ccttgtccct ggcctttgga cccaggcaaa ggcttctgag ccctgggcag 1980
gggtggtggg taccagagaa tgctgccttc ccccaagcct gcccctctgc ctcattttcc 2040
tgtagctcct ctggttctgt ttgctcattg gccgctgtgt tcatccaagg gggttctccc 2100
agaagtgagg ggcctttccc tccatccctt ggggcacggg gcagctgtgc ctgccctgcc 2160
tctgcctgag gcagccgctc ctgcctgagc ctggacatgg ggcccttcct tgtgttgcca 2220
atttattaac agcaaataaa ccaattaaat ggagactatt aaataacttt attttaaaaa 2280
tgactgctgt ggacctggct tttgtcccta ggactgtgtt tttcctcctg aaccccaaag 2340
aaaagaatga gaaggaaact ggctgtggtg tttattcagg gcccagggaa ggctgaaggc 2400
agcaggggggc gatgcagaga tggcaggatc ggggcaggtg gcctcagcca gatgtgcaac 2460
agcagacatt cctctttaga gcccaggggg tcaggccgtc actccttgtg ctgaggagaa 2520
agggatagct gagtgagcag tactacctgt cagcccccac agtccccctg cacagagagc 2580
aatgcccctg ccactcctca ccttggggcc cagggcgtcc cgggtccgtg cccgcagctt 2640
gttggcctgg gtttccgcca tgtctgcccg ctcctccgca tcatccagct cgtgctgggc 2700
cttgcgatac ttggccaggt tggtgttggc ctgctgctcc tgggggcaca cacagggcct 2760
tggttccgct tgggtgactg agatgcttat tctggtccct gccccagtcc aagaagggag 2820
ctagctcctc ctggttctca actttgttcc tattgccact gtccatcctc accaatacca 2880
cagcgggaat aaggaagttg ggacgcacca acttcatgtg ccttttttgtg cctgccccac 2940
ccctcagagg cagccccagc cttggccagg ggaaagcaca tggggtctgt tccatgagaa 3000
ggagctaggt ctgatctccc cagagatgtt agaagcttct ctcttccctc tgggtcactg 3060
accttggagg gtggagctgc tgctgatgcc tcacctggcc acagaccctg gggcagagct 3120
ggggtgcccg gtccaggtgt ccaggcccca gcgcactcac cgcctcctca aactggcgct 3180
tgtagctctt gaccttgctc tgcagcttgt ccaccaggtc ctgcatgcga gccaggttct 3240
t 3241

<210> 2157
<211> 20295
<212> DNA
<213> Homo sapiens

<400> 2157
agggccattt gcgacttgaa gagcggtccc cataatttgc tgtcatacat ctgcctgggc 60

09509082 - 092101

```
acttcctggg ggtctggttg gtggcaggag aagggcataa gcagggaggg atgggtcatg   120
ttactgtatt ggctgtgtcc gaatattttt actttatgtt aaagttgatg aggcacaact   180
attgcagagt ccatttttcc gagtctctgc gctcacctgg ctcctgggat tgtggaggga   240
gttttgcagc tttcagagtc tgtgttttgg gctcatggcc cagccgaatg gccatgctac   300
aagtctgttc agagcaggtt cgaggggcag aaacgtgttt cctcacaagc tgtgactcaa   360
tcctgtctcc ggtggctgtg tcagcctcca ttgtgttccc tcctccaggg gcttctgagg   420
agaatggcct gcctcacacg tcagccagaa cccagctgcc ccagtcaatg aagattatgc   480
atgagatcat gtacaaactg gaagtgctct atgtcctctg cgtgctgctg atggggcgtc   540
agcgaaacca ggtgggcccc tctccagcgt ctcaggacac ggggagcagg tgctgcccgg   600
gtgctcatgg tatgccaggt gctccactgg gccttctgtt agaatggctc tcgctttagc   660
ctggcaaagc ataggggtat ttctccttct gttctaccta taaggaaacc aggctgattc   720
cagaaccggg agtcttttca ctgtgccttg ctgtatggag cgtttctagg cagtcttggt   780
tggtgctgag ggcagaagca ggcagttgcc tctgtgaggt gaagactaaa gagttgaaag   840
ctggcaagcc tggccctgtg gacatgctag aggagttgcc aacctgatgt gggctcaggg   900
cagtgggaca gagcccagag ctgtgtctgc ttaggaaaac tgggcaagta cagggagctc   960
cagatgtgca aggttccctg agccttgaag tagttccaag acggaggagg aggggcccat  1020
aacctacagt ggaggaaaaa gggcttggaa cagtgcggcc ctcctcaaga ctattgagaa  1080
gtagcctttt cctgcagacc gcgcccttct agggaggaaa ccaagcatgg gggcaggaga  1140
ggctggaggc tcagcagtcc ttccacatct ttctgagtca gacactggac tgtcacaagt  1200
ctgggcaaca gaggtgcagt taccccccatt ttacaagtga ggatgaaaac gtccagaaga  1260
gaatgaaaga gtgtaccagg tgggaggggg cagtgccctg gggaggagtg tgcatagttg  1320
ctggaacagt gaggcagcgc gggacagcct ggagcaaaca gccaggagag gagggctgag  1380
ggctcacagg gaccaggtca tgtcaagctg tcacaggcca ttttaaagac tttggttttt  1440
actctgagtg aagtgagaag tcattcctct gactgctttt ggaaagactg gaaacagcaa  1500
ggaagggaat agggcgacca ttaggggccc tcataatagg gccaagagat gatagcagct  1560
aggaccagca cattgatggt gggactggtg ggaggtggtt gcattctgga tatgttttga  1620
aagataggat ttgctgatgg tttggatgtg aacttaagag tgaggagagg agttaagggt  1680
gactcccaag gtttttcgcc caaggaagta ggagaatgga tttgccaggt attgaggtgg  1740
ttaagactag caggtaaggg gtggaggagc aggcttaggg aggaagatgg ggagttgtgt  1800
tttgtacaag gtagatttga ggtgtgtgtt agaattgaca cttggattga ttacctacac  1860
ctggtgttgg ggagatggca aggctggagg tatcactttg ggagtcctca gcatatggtt  1920
gtatttaaaa ccaggacact ggatgagatc ccacggtgat agccacagca ttggtgtccc  1980
ttccttcaat acggaacatg tttttaataa aaaataatag ttttagggac agcttttatg  2040
cattgagtgc tattactttt ttgaggcact ttcgcagttg cttatatgtg aaataattgt  2100
agggacagct tctgtgcatt gagtgctatt actttttcga ggcactttca cagttgtttg  2160
aattttcagg tatttagtaa gttacacaac aggtggtgac tctgtgtccc cacactcgat  2220
tcttgagaaa gccagggcat aaactgggct gtgcgctcag gggacaggcc tggatagagc  2280
caggatttaa actctgctgc cctgtctcct ctttctgccc tctcacagca gttctctgtt  2340
ccctgagcct tcttgttgcc aggttgctat gagttgttgc ggtcttgagt taaactgtat  2400
gattacagtg ctggttcctt gggaagggac cactaatgac cttgaaatcc tggcccccca  2460
aaaccactgt ttcactagcg tgttctcatt tgcacagtca gcatttcctg ggtttctgct  2520
gtgtgccggg caccgtgagg atctggattc ccagatcctg cctacactgg gtagcaaggg  2580
gaagggtttc cttggccagg cctcacagaa ggcttcctcc ttaaagaggc ctcctcgtta  2640
atgagcagtt gggccaagtt ctcagaccaa tcttggccaa attgaaatct caggactgga  2700
aaggctcccc atgtgctgtc aagtttcatc cctctggtgc taatgaaaac catccatata  2760
gcagtcgttt cttttagtgc cccctgagta gcttctacag tacctcactg agccttttca  2820
acagctccat cgtcccccat cgccttttct atcaagggac ttgggttcaa agaatgttgc  2880
ccagggtcac agagctatct tgtgaaccca gggctgtctg actgcagaga taaatgcctg  2940
agcctgtacc cgctgcctcc tctggtagag tggcacttca tctcgcccac ctgcctacca  3000
tcctgctata gagcaggcta cggggctgga cctgagagta ggaataatgc attctacaag  3060
taaaatttgt tttacaaatt ttacacatga agaagctgct attttctttc tttctttttt  3120
ttttttttct ttttttcttt ttttgagaca gtcttgctct gccacccagg ctggagtggt  3180
gcagtgacat gacctcggct cactgcaacc tctgcctccc cagctcaagc gatcctcttg  3240
cctcagccct ccaagtagct ggggttatag gcacacacca ccacacccag ctaatttttg  3300
tatttttagt agagacaggg tttcatcatg ttggccagga tggtctgaaa ctcctggcct  3360
caagtgatcc gcccgccttg gcctcccaaa gtgctgggat taacaggcgt gagccaccat  3420
gcccggccga gaagctggta ttgttaagag aaaagggaaa tgatgtagta gaaacctcaa  3480
acctaagcac tggcctgaac ttaggagacc cagggtcagg tccaagtctg ccttagaagg  3540
cccctctctt cccagctgtg tgactcaccc ctaatctctt aagcttgggt ttctagtctg  3600
tgcagtgagg caattgcact ggatgaattt ttttgggcca ttgttggaac attttatagc  3660
tgtgtgacct gggcctggct tagggcccct tggagtgaga caggaaggca catggcttgg  3720
```

```
tgaacaccat agatgtcagc cgtacctccc cacccccagt taagcagggc aaggtagatc   3780
caggctgggt tttagtaaag gcctgagtgg cagaacaggt gtcattttac atcagcctca   3840
gtctaacaga ttctgggctg cttatgagtc ttaacactgg ccagaggctg tgatttctag   3900
taggaagaga atagtcacct ctattacttt cagtggcaaa aatcgcaatt acttttacac   3960
aacctaatat gttgaaggaa gaggtccatg gaaatggagg ctgccaggga tgtctttgtc   4020
agcttctggt ctcccaagat aaatgcatac ctgtagtggg ctagaaaggg gcagacttaa   4080
gatctgaaca cctgagttag gtgccgttgc aatcactgac cttacccagg ctggtcttgc   4140
tgaacttctc ccccttgtaa aatagcaata agcgagcact ggtgctgtgt gcagagcttt   4200
acatctgctt tctgactcga tccttacaac agccccgaga agggctagta atagccttat   4260
gttatataaa caaattttaa cagggaaatc attcctgcag ttctgtttta aaagatataa   4320
attagtataa gtgaagcctc tctcccctct gatccttgac attctattct aatggttcca   4380
tgaagcagct aattttacca gttattagtg tatccttcta gagacatttt tatgcttaca   4440
aaggcgaatt gtattcctct ttttttacac aatcagtaat acagcatgag cacacttgct   4500
ttcccagtat tatctctcgg caattgttca gttcacgaca tataaaatac cttgattctt   4560
ttttactggt gccttgtatc ccattgagtg gcataccata atttattttg gggtattaca   4620
aataatgcta tagtgagtag tgttgtaaat atatatcatt tagtgtttat atggatctgt   4680
ctgagtgtaa attcctaaag tggaattgct ggtttaaagg gattatggat ttgcaatttt   4740
agagctactg ccaaacactc ttccctgtgc aggtcatacc agtgtgccct cccaccaaca   4800
gcgtgtgaat gtacccaatg cccaagtcac caacacggtc ttataaagct ttgtcatctt   4860
tcccagtctg aaaaagtgaa aaatcagaga catttgtagg actccttata gaggaatttc   4920
tttgcctgtg gcatgaattg ccaatgtatg ttctctgttt gtcatatttg gcttgtgact   4980
ttgcttgagt tttgccatac agaattttta aaggtttagg tggttgatgt caacaagctt   5040
ctttttgagc ttctaggttt attataatcc ttcagaaagg cttttccaac tcttagatca   5100
ttttttttte tttgcagaga tttttctaga tcttagagtt ttttaataat tgtatcttac   5160
tttcagctga aatttatcct agtgcaaagc atgaggaaca ttttgatgtt aatacgagga   5220
gacaaatctt aaggaatttg tttaaggtta caaagtttgc acatggtaaa gctaagagtc   5280
aaacccagga ctcttgcatc ccaaaggact cttgaatcat atgcaggact ctctgaatcc   5340
caaactcatg cttctgtgat aggaactacc ggacattatg ccttgtagga ttattgtgag   5400
cattaatgag caaagttaga aagtgggttt gtgtgtgctg ggcatagggg atacacggat   5460
gttttcttca gaccctggcc ctccttactg acagtactga tacttgtcct gaatatcatt   5520
atcgtgtgta ctgagcacga ggttttgcta gatttttcaa gcacatttgt cttaatactt   5580
tttccttcct atcccattca ggttcacaga atgattgcag agttcaagct gatccctgga   5640
cttaataatt tgtttgacaa actgatttgg aggaagcatt cagcatctgc ccttgtcctc   5700
catggtcaca accagaactg tgactgtagc ccggtaagca ggagacccca ggggacagat   5760
ggggcctcac tggcttggag tagttgtttc aagacctgct gctgaccctt tgacctttt    5820
tcctttggga gtagagcaga aactaaaatc atatcttata gtcccctaat tggaagctac   5880
cttggagtag gatctgagtg aactccactc cccaccccaa cctatgcaga aatccctttt   5940
aagatcttcc taggctgggc acagtgactc aggcctgtaa tcccagcact ttgggaggcc   6000
gagcgggcag atcacttgag gtcaagagtt acagaccagc ctggccaaca tggtgaaacc   6060
ctgtctcact agtgtgagag acacttgcgt ctctcactaa aaatacaaaa attggccagg   6120
tatggtgttg ggtgcctgta atcccaactc ttcgggaggc tgaggcacca gaattgcttg   6180
aacccaggag gcagaggttg cagtgagctg agatcacgcc actggactcc agcctgcgta   6240
acaaagtgag actgtgtctc aaaaaaaaaa aaaaaaaaag ttcctgcctg aggccctcta   6300
gccaacttcc ccttgtaatc tctgtgatag ggatctcatt tcactccagg caggggctgc   6360
ccactgcatg agctagcagc ctgcttttcc ttatttgctg ttttatccta ttgtaatttt   6420
catccaccta tagaaccgtg ctcccgggcg tggtggtcac acccgtaatc ccagcagttt   6480
gaaaggccaa ggcgggcaga tcacttgagg tcaggagttc gagaccagcc tggccaacat   6540
ggtgaaaccc cgtctctact aaaaatacaa aaattagcca ggcatgttgg tggggcacct   6600
gtaatccctg ctactcagga ggctgaggtg ggagaatcac ttgaacccgg gaggtagagg   6660
ttgcagtgaa ctaagatcaa gccactgcac atccggcctg ggtgacagag caaagacact   6720
gtctcataca aaaaaaggtg gctttggttt tttgagccca agcactctcc tttagcttgt   6780
gtctctcaca gtccccttga gagagctctg aacaggacat tggaaggctt gttggaagag   6840
cttgaatgaa tcactgaatc tctgagcctc tgttttcttg caaaagaagg ataatactct   6900
ttcccctatt ggcccccggg ctagtcggca ccctgcctac cagcatgaga aggaaagtgc   6960
tctgggacct aaaagtgcca cccagccatc ggcctggtgc catggggccc tcttctcttc   7020
actgcactct ggggacttcc ctcagcgacc tgtcttctgc tttatcattt gagttttaa    7080
tttcaagcaa atatattttg catttctaga tgttctgtct ggctcaattc ggaaactgct   7140
tagccatgat gttaatatct tttttctgct gcatattctg tttttaatca tttttaaaat   7200
actttcttaa ggtctctttc gattgctcat ggggcactaa tgcttgtgtt tgggtcttca   7260
gacctcaggg tggagtgttg cctcgtgttt tgtaatgtct gtggagcggc caccagaatt   7320
gcttgaaccc aggaggcaga ggttgcagtg agctgagatc acgccactgc actccagcct   7380
```

US 6,150,087

```
gggcaacaga gtgagactgt gtctcaaaaa aaaaaaaaaa aaaaaattct gcctgaggcc   7440
ctctagccac ttccccttgt aatctctgtg atggggatct catttcactc caggcaggga   7500
gggggctgcc cactgcatga gctagcagcc tgcttttcct tatttgctgt tttatcctat   7560
tgtaattttc atccacctat agaaacgtgc tcccgggcat ggtggctcac acccgtaatc   7620
ccagcacttt gagaggccaa ggcgggcaga tcacttgagg tcagtggggt tagtttcccc   7680
cttggatacc tgtgtagcct cagccctgga ggcatttcta cagggcactt ttgcttttgt   7740
ctggcagctg tcccagggcc agttttctta tttaatgtct tggccctact gccccagtcg   7800
tatgagccca gggtttctgc tgctcttggg agggccccct tcacccacca gcagcaccat   7860
ggcagagcca ggctccctgg gctggtgggt caggcctttc taacccttct ttcaccaagt   7920
gtacatgctc cccaggcttt actgggacct gacaccctgt ctagtccctg cagggcatta   7980
aaacccaagc cttagtgtga ctaggtcttg tctccacctc tccacactgc ccacagctgc   8040
tgagtatcag ttccttggct cactattcca aactcctcgg tcctttcttc atttctaact   8100
cctatggact tcccccgctc ctccccacac gtgttgtttt gtttgttggt tggttggatt   8160
tttgggacag agtctccatc acccaggctg gagtgcagtc agtggtgcga tctcggctca   8220
ctgcaacttc cgcctcccag gttcaagtga ttctcctgcc tcagcctcct gagtagccag   8280
aattacaggc gcagcaacta tgcctggcta atttttgtat ttttagtaga gacagggttt   8340
gccatgttgc ccaggctggt ctcaagctcc tgacctcaag cgatctgccc gcctcggcct   8400
cccaaagtgc tgtgattaca ggtgtaacca ccacgccccg ccttattttt tattgagtgt   8460
gatggcatgt ttttagcagg aaggggggca cattagctta atctgctgtt gatcagatgt   8520
ggaagtgaac agatggtttt ctaactaaag aaaagtcctc atggtacatg aggacagagg   8580
cttagagaag caggctccca ccagagtgtc tgcttgtgtt attttggaac cttgtggctg   8640
tggtcctaac attgaggctg tgcatgtgtt tcaggacatc accttgaaga tacagttttt   8700
gaggcttctt cagagcttca gtgaccacca cgagtaagta caagagtgtc cctgcaagga   8760
gagttgttgg gctgtcttcg gaaggcctcg atctccttgt ctggtccctg acctcagctc   8820
gagaggaggc cctggagctg gtggaagccc actgtcccct cagtgttagc aggtgtgaca   8880
ctgcagtcgg acctcccgtc tttccagact tccttatggc aggcactgcc ccaagctttc   8940
ttctaaccct catagccacc ccaggaactg agtatggaag tcgttggccc cttactacct   9000
ttggaatcaa tggatttctc aacctactgc ccctctaaag caagagtgga cagcgtggct   9060
attcccaggg gccggcagga acttcagaca ggcaaagccg actgcttact gagcagctgg   9120
aggattcttc cctccacaag gaggtgtgct cccatttttc ttgaaagaca ttctgcgctc   9180
atttatttt taaccttcga tggagaatgt acaaggaaaa ttactctctg ctgtaaggaa   9240
aacagtgcag gaaggggtg actagcagct gacccttgac cttggcattg gggaggtgat   9300
gtggggacct tagtgaacaa gaatttcagt gagctcagct ccagccagct gcgtgtgcac   9360
aggaaactgg gcccactgtt gcataacttc tgatttttc tgccaagcaa aggcagaaat   9420
taagatttat gtgaaaggtc ctgattttaa atgttggttt aaatatttta aaaaccttgc   9480
atttgagcta acagaacatg cctggagaca gctgtggccc cagggcacct ccatcatatg   9540
cacccatcct ctgtgagagg ttttccggct gaaagccata gaagggctcc aggaagcatg   9600
ttaaccttct gaaaaatggc accacatatg ttatggaact gtgctgtttt ccctgaggaa   9660
gtgagtctct ggctttcatc agactcttca gtctgagtac tctgtgggat atcaggatga   9720
atgcaaacag ccatggcccc tgctctcatg aagggcagag tctgaaaaca gagacagttg   9780
ttcatccaag gattccaccg ttgagcatta gtgataagtg gagatggtat tcaggaggag   9840
aggaacgggg tctgtgagag acatttgaca gggtccagga ctggccagag gacactcagg   9900
aactctcccc tgcagaagtg gcttgccagc caagacctga agtgtcagct tgtagtgaat   9960
tgagtgaaca ggcatgtgag agggtgtgtg ttctagccag aagcccctga acgagggaag  10020
accattgtgg ccagctgatg ggagtgatgt gggcttggct ctgggctggg ctgcacagga  10080
cgttgtgggt cacagtcaca gggtgttgtg ggtcacagtc acaggcctgg attttatata  10140
cagatggtcc acttagaatt tttcaacttc acaatggtac agaagtagaa ttttgaattt  10200
tgatcttttc ctgggctcat gataaacagt tcaatactct tgcaatgctg ggcactgagc  10260
tgcagctgca gctcagaatg tatttcaaga aaaatggtga ccagctacac gatcaccaag  10320
gtagacaacc agtactctgt gctgtgcctg ccgtgttgcc agtgattatg gccaactgta  10380
ggctgaagtc agtgttctga gcacattcca ggtaggctag gctaagctag gaggttcagt  10440
gggttagata tattaaatgt gttttctttc tttttctttt tttcaagacg gaatcttgct  10500
ctattgccca ggctggagtg cagtggcatg atcttggctc actgcaacct ccaccttctg  10560
ggttcaagca attctacctc agcctcctga gtagctagga ttataggcgt gtgccaccac  10620
gcccagctaa ttttttatat ttttagtaga gatggggttt cgccacgttg gccaggctgg  10680
tctcgaactc ctgacctcgt gatccacccg cctggacctt ccaaagtgct gggattacag  10740
acgtgaacca ccgcgcccgg cctcaatatg ttttcaactt aacggcattt tcaaatacga  10800
tgggtttatc aggacataac ctcctcctaa gtcaggaaat gtctgttcta aatgcagtgg  10860
gaagctgtgg aagtgttttc accgggagtg acaggatcag agtcctgatt ctgaagatca  10920
cttttggcac cgtgtgatga ctcagttcct gtgggatacc ttttagtaaa gggagctggt  10980
gtcctgggaa cacaggaccc agcagtgaca ggcctggatg gcaagtcggg ggaagtgtca  11040
```

cagttaacca ggcctctgtg tgatgtgtga ccgtggtgct tggtgggact gctgcagcag 11100
ggccaggctt gagtgtgatt ggacctgttg aggtgttggt gcctttgaga aaacaagtgg 11160
aaatgtaggc aaagagaaag gcccagagct gctgagggaa ggggccttgt cgatgaatgt 11220
ggcaggcagg ggtcggggat gggggtgggg ccagggagag attccactgc ctgagagccc 11280
agagttccct cctgcaggtg ctggctggag tgagaggtgc tagaggaaag tgcctggtgg 11340
cttctcagat tctgtccaca ggaagtgggc aggagactcc ctacactagc ctggtgctga 11400
cccagcagcc ccagttcctg tcctttacct cctccaaccc attttgtttc aggaacaagt 11460
acttgttact caacaaccag gagctgaatg aactcagtgc catctctctc aaggccaaca 11520
tccctgaggt ggaagctgtc ctcaacaccg acaggtgagt gcaggggtgc agcttttccc 11580
tcagcccatc ccggctgccc acgttccccg ggggctcacc ggtgagcaca tccaggtatg 11640
cacgcgtgtc ctctctcaca tgcagctaca gtgtcctgag ggctcctgtg tgccaggcat 11700
tgtattcatg tcacctgcat tttctcattg gagcctcaca gcagccctag gaggggagcc 11760
ccatcagtac ctgcacttga cagatgaggt gagcctcaga gaggtcacct gccagaagtc 11820
atgtgtgctc cgcactgccc caccgccttg tctcgtgcat tcagcccctt tgcttatgtg 11880
ctcctttctt gcctggtggc atctgcagcc aagcaggaca gacagaagcc tcttacctgc 11940
tgccaagtgt taggttgcat tacctgggtt aggtttgcct cacctggagc caggcagtgg 12000
ggggctagtc tcacaggcgt cagaatacag tggactttat ccaacaagag ccatgatttc 12060
ccaacctttt ttgtttgttt gttttgtttt gttttttaga cacaaggtct tgctctttct 12120
ctcaggctgc agagcagtgg tgttatagct cactgcagcc acaaacttct gagctcaagt 12180
gattctcctg cctcagccgc ccgagtagct gggactacag gtgtgcgcca ccattcccag 12240
ctagtgtttt tacttttttt ttgtagagat ggggtctcac tatgttgccc aggctggtct 12300
cgaactcctg gcctcaagtg agcctcccaa agtccaggga ttacaggtgt gaaccacctc 12360
tcctggcctc ccaatctttt ttttctaagg tagcagaact cttcattcaa ataaaattgt 12420
acccagtcct gccctgatgt ctgcagtgga tcacagcaga gctgctctgt ttgaagggcc 12480
cagacccctg cgtgcctggc cgtcttcctt cccccatgac ggggccagag tcatttcctc 12540
atctcctgcc tttgcttcat agactgggaa gctgaggctt ggagttgtgg acacttgccc 12600
aaggccagct ggaagtgaac ctcaggcacg gagtacgctg ggcctcaccc tattggcaga 12660
gtctttcccc atctggcaga ctggcatgac ctgtttcaac acacttttgg tataaacagc 12720
tctcctctgg cagttctaag ccatgtctga ttctggatat gtttctggcc tgggaaggaa 12780
agctggcctg agatgtggtg ggaatgcact tggcagttta attctgtggc tgcaggggtc 12840
tccggggctc tggacccagt tggagcagga aggcatcctg cagacttgga aatgtcccca 12900
tggtttttca ccgcctaagc cagcagaatg acccatcccc agggcccctg tcagcctctc 12960
agatctgtca ccaatatctc tcttctattt caggagtttg gtgtgtgatg ggaagagggg 13020
cttattaact cgtctgctgc aggtcatgaa gaaggagcca gcagagtcgt ctttcaggtg 13080
agtctgggga aaagtacctg ccgattctgc ggggctgcag agccaggtgt ttctcaggag 13140
gttaggaata cctcctttag tcaccagcgt ccatgcctcc tgaagcacaa ttactgttgg 13200
ggagaggtgg tttgactgcc atcttgtgta gttttgactc gacaggtatg tgagagcttc 13260
ttctgcagcc cacagtgacc gagcattcac caagcacctg ttctgtgctg gtgccttatg 13320
ggtgggagag aactaggata cgggccctgc catgaattcc ctagagctgt gctgtttcaa 13380
tgcagtgtgg gaaggaatgg agccagggtt ggcccaggag ctatagcagc aaaggaaagc 13440
ctcttccgct gctagggctg ggggctgggt gaatacaggg agaccttctc tgaggtcctt 13500
agatacatct aagatgagtc ttgaagtcag tggacaggta gagttccatc agggccgggc 13560
gtgagctgtc aggaggcttc atgcccacat gggcctttgt cacttcagtg ccttgtccaa 13620
actccctgtc gtggataccc gctgtgccct ctgggtccct cggtcagcat caaccactac 13680
ttccctaggc cagcccatcg tctgtgagcc cagtggcctg tctgcatgtg ttcgtccgct 13740
tcccacacac attcctggcc cctcaattgc acgtcctccc attcttgtga aagggcaagg 13800
cctagagtat gtttcacggg ggctcgcagg agccagccct tcgatcccag atgttaccct 13860
ttctgtgaca cagccccttc cagacagacc cagatagaag acttctccac tgagctggct 13920
ctctgtgagg atgggggcac tgctgtgtcc ccaggcccag gatgaagcct gatgcttggt 13980
agatgttcag taaatgttga gtacatgaaa aggcaacaaa catctcccaa ccccttggag 14040
aactgaacat gggccggaag agggcagcct tagccacctg agccagtatt tgggtcgcag 14100
gttttggcaa gctcgggctg tggagagttt cctccgaggg accacctcct atgcagacca 14160
gatgttcctg ctgaagcgag gcctcttgga ggtatgatct ggagcagcca gtgtcttggg 14220
ttccgtctcc ccccagccca cgcgttgctg tgtcctgtcc tgagccccaa acagttcatc 14280
aggagcagag cagatctcgt gacttccaaa tgcctgtgca ggctgcctta gattttgccc 14340
tgggtttcca actgtgggtt ccccatgggt gcttacgggg tgacaggttt agagggtggc 14400
caggccatgc aggagggtga cagtttggtt acccagcaag gcattttgac cctgaagata 14460
ttttgtacta aaagttaatt ttcctttatt gaataatggt cttcagaaaa agtaaaactt 14520
agagcagaat ggccaaagtt ataattggtc tttcagattt tttcatatgg acaagaaact 14580
gacccacgaa ttataaaatc catgtggaaa agaattgatc caaatcaatg taacttcaag 14640
aaaatgtaga aaactttata aaggagtaaa ttggctttat tctcttgatg aaaactcagt 14700

09500822.090104

attttggtgt aaactctatt taaacaattt cgttcataaa cacaaagaca aaccatgggg 14760
tcaaaatgtg tcctttgctt ttaaattctg tccttcattt acttgaatga cctcagtgct 14820
taggcagtgg cctgtgtttt agacctggtg atgacagctc ccctcaccta ggagctgagc 14880
accccggcca tcttggtgac cacagagcag gtcacaggct tcagctgtac gccctgggca 14940
ggggagagat tgtgctgcat tcccagtctg ctccacctcc tggtgaggtc tgtcaggcct 15000
ggtcctgtcc ttggagccac cagcatcctc agacaagaat ctagacagtg ttgccagttc 15060
catccccagg atgcttgctc aaagccaatg catggtctga gctccatgcc aggccctggt 15120
gggggcagcc acgttgacac cttcaccctg tccctcctca cccagcacat cctttactgc 15180
attgtggaca gcgagtgtaa gtcaagggat gtgctccaga gttactttga cctcctgggg 15240
gagctgatga agttcaacgt tgatgcattc aagagattca ataaatatat caacaccgat 15300
gcaaaggtaa agttaaccca gggctctgtg gagtgtgctg ggttgtccag aagttcacct 15360
ggagtcctgg tctgccaggc tttaggcaca ggttttacgt tagagacgac gggggagtct 15420
gggcagtctt tggcaaacat tcattggaac ctgctctgtc tggctttgtg ctagaccctg 15480
ggaatgcagg gatgaaaacc ggggctgctt gtgggtaggg agtgagggtg ggaatgggtg 15540
gcttgtgcgc ctgccgtgac gcagcatggt gggtgccacg gtgggagccg ctgtagggag 15600
ggactgggcc tggtgtgtta ggctcaccga gtgtgtgtga cagaaaccca gctcaggcta 15660
gctgaagtaa aattaaaagt aaaaattaaa ggaatccagc acccttgagc gtaaaaccac 15720
tggagagagt gtcggatctg tgctgaattc cggggagtgc ctcttagtac ctgggtggtg 15780
aggggaggtc cctcagctta tctgagcctc tgtcttccta tctgaagcag tggggctggt 15840
agaggtcgct gatgcccctt gtagtgacta tccccccggg ccatggccat acctggccag 15900
cagcccactg cctgctgtga gcttggtttc tgtatagttc caggtattcc tgaagcagat 15960
caacagctcc ctggtggact ccaacatgct ggtgcgctgt gtcactctgt ccctggaccg 16020
atttgaaaac caggtggata tgaaaggtac atgaaaggca ggctgtcaag gcaagtcatg 16080
cagggtaaga atgctggcat cagacaccct gtctccagca gggagacaag aatgactgag 16140
ggagctgcac cagatgccca cgtggccggc ctcaaggtgg cggcttccag ggcaattggc 16200
tttgctgcct tgttcaacac tttaataagg tgaaaatcca ttgttgctag caagatgcaa 16260
agaaaaccag aaaaagacct tcctcttctg ggctggtatt gcctggcacg atgagttggc 16320
cccctcgtcc tcagtgtgct gtgcgtggca tcgcaggtgc cctgtggtgc agcaggcatc 16380
tgaaccctcc tggacttgct aacgcacttc catgtgtatg cgcacgcgtt tcctttttt 16440
cctaggagag ggcttgtggc atccagcaga ttctcctgag ggtttgtgac ccccccacac 16500
ccccaaaaag tcaggcactt gttccttgtc acggtcactg tcattgatag caagaagtat 16560
cccggttgtt ggtaatttag ccgtttgctt cctttttctg ccccagaggg tctgtttcag 16620
gggaacagcc acacagattt tggtaccttc ggttattgcc ctgcctccca gttgtgcggg 16680
aagcagttgc tccgacacta gtggacggag cagaacctgt gccttgtggt ctcagcactg 16740
ggccggactc acctgagagc tggtgtggaa aaccagttgc gctaggacct ctgcagaagg 16800
agtggaactt ttgcgttgtt tttcttaatg cagcgtcatg gatccatctt cctgtggagg 16860
gaactcttct gtgtgtgata tggagggcac gggtctggag ccagtctggg gagggctgag 16920
ggagagctgc cctgagcttg gttctggagg atgaggtggg gtgctcctgg gcactctgag 16980
aacatggctt tgcctggtag caggacagct ggaggtcctt ctttctgcca cagtcagctt 17040
tcgttgaagc tgttttgatg atgagctcct agcttcagag tcaggaccca agcggggctc 17100
cacgaaaggc ctgggcgacc cagccactgg gcctaagcct gacctgctgc acccctgcct 17160
ccctccacag ttgccgaggt actgtctgaa tgccgcctgc tcgcctacat atcccaggtg 17220
cccacgcaga tgtccttcct cttccgcctc atcaacatca tccacgtgca gacgctgacc 17280
caggtgagag gccccggcag acacacagca gggaaggtcg attggaaacc acttcctttg 17340
tcctggtgcc cagcaggttt ctgtccccca ctccagaagt gcgtctctgg agacccagct 17400
cttctgagga ctgtgctcag gaggaatcag tgtcccattg tacagacagg gcctaaggaa 17460
ggagggctcg caagtgccct caggtcacag gctgacttgc aggccagtgc tctccccgcc 17520
tcccccatgt ccacgtccct cacaccttct gccctgctgg gctttggaat cggacctgag 17580
gctgcccaac tccctcactg aatagtcatg cagccttccc ttctctgagc ctcctgcccc 17640
tcttttctag agtgagggtg atcttagcac ctctcagagg tggtctttgg ttccgttctg 17700
aggtgaagca ccaggtggga gtgcatggtg agtggggcag aactctttcc ccaccgaggc 17760
gcgcaggcta gtgctgaatg gcacttctga agcgggataa ccgccccaac acacgcaccc 17820
agccctgcct gggacggacc ttccggaagg agtgatgctt gagcccaggt ctggacaggg 17880
acaggtgttg ttgcctcagg tggggtggga ggtgggcgtg gggaagagga aggtgctcag 17940
tcaggaaact ggggctgctg ggggcccccc tcccccagtc ctatctcacc tctgtgcagg 18000
gagagctctg tgggtggccc gaggcctggg gccactctcc tccctgcctg atggctaccc 18060
aggttcacca ggggccactg gggctcccac cagcccctga ccctgtgggc ctgtggcctt 18120
gcaggagaac gtcagctgcc tcaacaccag cctggtgatc ctgatgctgg cccgacggaa 18180
agagcggctg cccctgtacc tgcggctgct gcagcggatg gagcacagca agaagtaccc 18240
cggcttcctg ctcaacaact tccacaacct gctgcgcttc tggcagcagc actacctgca 18300
caaggacaag gacagcacct gcctagagaa cgtgagtgcc ccaccctcaa gggggtgatg 18360

09505082 - 061101

ggtgggccgc ggacccaggg cctctcagag gggtgtcccg gtgctgggct tgacctgggt 18420
cctccaggcg ccccccagcc cctccctctt tgcccagagc tcctgcatca gcttctcata 18480
ctggaaggag acagtgtcca tcctgttgaa cccggaccgg cagtcaccct ctgctctcgt 18540
tagctacatt gaggagccct acatggacat agacagggac ttcactgagg agtgaccttg 18600
ggccaggcct cgggaggctg ctgggccagt gtgggtgagc gtgggtacga tgccacacgc 18660
cctgccctgt tcccgttcct ccctgctgct ctctgcctgc cccaggtctt tgggtacagg 18720
cttggtggga gggaagtcct agaagcccct ggtccccctg ggtctgaggg ccctaggtca 18780
tggagagcct cagtccccat aatgaggaca gggtaccatg cccacctttc cttcagaacc 18840
ctggggccca gggccaccca gaggtaagag gacatttagc attagctctg tgtgagctcc 18900
tgccggtttc ttggctgtca gtcagtccca gagtggggag gaagatatgg gtgaccccca 18960
ccccccatct gtgagccaag cctcccttgt ccctggcctt tggacccagg caaaggcttc 19020
tgagccctgg gcaggggtgg tgggtaccag agaatgctgc cttcccccaa gcctgccct 19080
ctgcctcatt ttcctgtagc tcctctggtt ctgtttgctc attggccgct gtgttcatcc 19140
aaggggttc tcccagaagt gaggggcctt tccctccatc ccttggggca cggggcagct 19200
gtgcctgccc tgcctctgcc tgaggcagcc gctcctgcct gagcctggac atggggccct 19260
tccttgtgtt gccaatttat taacagcaaa taaaccaatt aaatggagac tattaaataa 19320
ctttatttta aaaatgactg ctgtggacct ggcttttgtc cctaggactg tgtttttcct 19380
cctgaacccc aaagaaaaga atgagaagga aactggctgt ggtgtttatt cagggcccag 19440
ggaaggctga aggcagcagg gggcgatgca gagatggcag gatcggggca ggtggcctca 19500
gccagatgtg caacagcaga cattcctctt tagagcccag ggggtcaggc cgtcactcct 19560
tgtgctgagg agaaagggat agctgagtga gcagtactac ctgtcagccc ccacagtccc 19620
cctgcacaga gagcaatgcc cctgccactc ctcaccttgg ggcccagggc gtcccgggtc 19680
cgtgcccgca gcttgttggc ctgggtttcc gccatgtctg cccgctcctc cgcatcatcc 19740
agctcgtgct gggccttgcg atacttggcc aggttggtgt tggcctgctg ctcctggggg 19800
cacacacagg gccttggttc cgcttgggtg actgagatgc ttattctggt ccctgcccca 19860
gtccaagaag ggagctagct cctcctggtt ctcaactttg ttcctattgc cactgtccat 19920
cctcaccaat accacagcgg gaataaggaa gttgggacgc accaacttca tgtgcctttt 19980
tgtgcctgcc ccacccctca gaggcagccc cagccttggc caggggaaag cacatggggt 20040
ctgttccatg agaaggagct aggtctgatc tccccagaga tgttagaagc ttctctcttc 20100
cctctgggtc actgaccttg gagggtggag ctgctgctga tgcctcacct ggccacagac 20160
cctggggcag agctggggtg cccggtccag gtgtccaggc cccagcgcac tcaccgcctc 20220
ctcaaactgg cgcttgtagc tcttgacctt gctctgcagc ttgtccacca ggtcctgcat 20280
gcgagccagg ttctt 20295

09509082 - 092102

<210> 2158
<211> 188
<212> DNA
<213> Homo sapiens

<400> 2158
tctgcgtgat agttcttcag gttcacttca cagattagct gacacttaac tgttctggaa 60
gctgggccaa ggagtgctaa catggaaatt gagtaactat agtttttgc ccaaggtaca 120
ggagaataaa tatgagtaga tagaatctct taaattaaaa atttctccag taaatttttc 180
ctaagtct 188

<210> 2159
<211> 3241
<212> DNA
<213> Homo sapiens

<400> 2159
ttttgatgat gagctcctag cttcaaagtc aggacccagc ggggctccac gaaagcctgg 60
gcgacccagc cactgggcct aagcctgacc tgctgcaccc ctgcctccct ccacagttgc 120
cgaggtactg tctgaatgcc gcctgctcgc ctacatatcc caggtgccca cgcagatgtc 180
cttcctcttc cgcctcatca acatcatcca cgtgcagacg ctgacccagg tgagaggccc 240
cggcagacac acagcaggga aggtcgattg gaaaccactt cctttgtcct ggtgcccagc 300
aggtttctgt cccccactcc agaagtgcgt ctctggagac ccagctcttc tgaggactgt 360
gctcaggagg aatcagtgtc ccattgtaca gacagggcct aaggaaggag ggctcgcaag 420
tgccctcagg tcacaggctg acttgcaggc cagtgctctc cccgcctccc ccatgtccac 480

EP2215250-20100825

gtccctcaca ccttctgccc tgctgggctt tggaatcgga cctgaggctg cccaactccc 540
tcactgaata gtcatgcagc cttcccttct ctgagcctcc tgcccctctt ttctagagtg 600
agggtgatct tagcacctct cagaggtggt ctttggttcc gttctgaggt gaagcaccag 660
gtgggagtgc atggtgagtg gggcagaact ctttccccac cgaggcgcgc aggctagtgc 720
tgaatggcac ttctgaagcg ggataaccgc cccaacacac gcacccagcc ctgcctggga 780
cggaccttcc ggaaggagtg atgcttgagc ccaggtctgg acagggacag gtgttgttgc 840
ctcaggtggg gtgggaggtg ggcgtgggga agaggaaggt gctcagtcag gaaactgggg 900
ctgctggggg ccccccttccc ccagtcctat ctcacctctg tgcagggaga gctctgtggg 960
tggcccgagg cctggggcca ctctcctccc tgcctgatgg ctacccaggt tcaccagggg 1020
ccactggggc tcccaccagc ccctgaccct gtgggcctgt ggccttgcag gagaacgtca 1080
gctgcctcaa caccagcctg gtgatcctga tgctggcccg acggaaagag cggctgcccc 1140
tgtacctgcg gctgctgcag cggatggagc acagcaagaa gtaccccggc ttcctgctca 1200
acaacttcca caacctgctg cgcttctggc agcagcacta cctgcacaag gacaaggaca 1260
gcacctgcct agagaacgtg agtgccccac cctcaagggg gtgatgggtg ggccgcggac 1320
ccagggcctc tcagaggggt gtcccggtgc tgggcttgac ctgggtcctc caggcgcccc 1380
ccagcccctc cttctttgcc cagagctcct gcatcagctt ctcatactgg aaggagacag 1440
tgtccatcct gttgaacccg gaccggcagt caccctctgc tctcgttagc tacattgagg 1500
agccctacat ggacatagac agggacttca ctgaggagtg accttgggac aggcctcggg 1560
aggctgctgg gccagtgtgg gtgagcgtgg gtacgatgcc acacgccctg ccctgttccc 1620
gttcctccct gctgctctct gcctgcccca ggtctttggg tacaggcttg gtgggaggga 1680
agtcctagaa gcccttggtc cccctgggtc tgagggccct aggtcatgga gagcctcagt 1740
ccccataatg aggacagggt accatgccca cctttccttc agaaccctgg ggcccagggc 1800
cacccagagg taagaggaca tttagcatta gctctgtgtg agctcctgcc ggtttcttgg 1860
ctgtcagtca gtcccagagt ggggaggaag atatgggtga cccccacccc ccatctgtga 1920
gccaagcctc ccttgtccct ggcctttgga cccaggcaaa ggcttctgag ccctgggcag 1980
gggtggtggg taccagagaa tgctgccttc ccccaagcct gcccctctgc ctcattttcc 2040
tgtagctcct ctggttctgt ttgctcattg gccgctgtgt tcatccaagg gggttctccc 2100
agaagtgagg ggcctttccc tccatccctt ggggcacggg gcagctgtgc ctgccctgcc 2160
tctgcctgag gcagccgctc ctgcctgagc ctggacatgg ggcccttcct tgtgttgcca 2220
atttattaac agcaaataaa ccaattaaat ggagactatt aaataacttt attttaaaaa 2280
tgactgctgt ggacctggct tttgtcccta ggactgtgtt tttcctcctg aaccccaaag 2340
aaaagaatga gaaggaaact ggctgtggtg tttattcagg gcccagggaa ggctgaaggc 2400
agcagggggc gatgcagaga tggcaggatc ggggcaggtg gcctcagcca gatgtgcaac 2460
agcagacatt cctctttaga gcccaggggg tcaggccgtc actccttgtg ctgaggagaa 2520
agggatagct gagtgagcag tactacctgt cagccccac agtccccctg cacagagagc 2580
aatgcccctg ccactcctca ccttggggcc cagggcgtcc cgggtccgtg cccgcagctt 2640
gttggcctgg gtttccgcca tgtctgcccg ctcctccgca tcatccagct cgtgctgggc 2700
cttgcgatac ttggccaggt tggtgttggc ctgctgctcc tgggggcaca cacagggcct 2760
tggttccgct tgggtgactg agatgcttat tctggtccct gccccagtcc aagaagggag 2820
ctagctcctc ctggttctca actttgttcc tattgccact gtccatcctc accaatacca 2880
cagcgggaat aaggaagttg ggacgcacca acttcatgtg ccttttttgtg cctgccccac 2940
ccctcagagg cagccccagc cttggccagg ggaaagcaca tggggtctgt tccatgagaa 3000
ggagctaggt ctgatctccc cagagatgtt agaagcttct ctcttccctc tgggtcactg 3060
accttggagg gtggagctgc tgctgatgcc tcacctggcc acagaccctg gggcagagct 3120
ggggtgcccg gtccaggtgt ccaggcccca gcgcactcac cgcctcctca aactggcgct 3180
tgtagctctt gaccttgctc tgcagcttgt ccaccaggtc ctgcatgcga gccaggttct 3240
t 3241

<210> 2160
<211> 20295
<212> DNA
<213> Homo sapiens

<400> 2160
agggccattt gcgacttgaa gagcggtccc cataatttgc tgtcatacat ctgcctgggc 60
acttcctggg ggtctggttg gtggcaggag aagggcataa gcagggaggg atgggtcatg 120
ttactgtatt ggctgtgtcc gaatattttt actttatgtt aaagttgatg aggcacaact 180
attgcagagt ccatttttcc gagtctctgc gctcacctgg ctcctgggat tgtggaggga 240
gttttgcagc tttcagagtc tgtgttttgg gctcatggcc cagccgaatg gccatgctac 300
aagtctgttc agagcaggtt cgaggggcag aaacgtgttt cctcacaagc tgtgactcaa 360

EP 0 950 708 A2

```
tcctgtctcc ggtggctgtg tcagcctcca ttgtgttccc tcctccaggg gcttctgagg    420
agaatggcct gcctcacacg tcagccagaa cccagctgcc ccagtcaatg aagattatgc    480
atgagatcat gtacaaactg gaagtgctct atgtcctctg cgtgctgctg atggggcgtc    540
agcgaaacca ggtgggcccc tctccagcgt ctcaggacac ggggagcagg tgctgcccgg    600
gtgctcatgg tatgccaggt gctccactgg gccttctgtt agaatggctc tcgctttagc    660
ctggcaaagc ataggggtat ttctccttct gttctaccta taaggaaacc aggctgattc    720
cagaaccggg agtcttttca ctgtgccttg ctgtatggag cgtttctagg cagtcttggt    780
tggtgctgag ggcagaagca ggcagttgcc tctgtgaggt gaagactaaa gagttgaaag    840
ctggcaagcc tggccctgtg gacatgctag aggagttgcc aacctgatgt gggctcaggg    900
cagtgggaca gagcccagag ctgtgtctgc ttaggaaaac tgggcaagta cagggagctc    960
cagatgtgca aggttccctg agccttgaag tagttccaag acggaggagg aggggcccat   1020
aacctacagt ggaggaaaaa gggcttggaa cagtgcggcc ctcctcaaga ctattgagaa   1080
gtagcctttt cctgcagacc gcgcccttct agggaggaaa ccaagcatgg gggcaggaga   1140
ggctggaggc tcagcagtcc ttccacatct ttctgagtca gacactggac tgtcacaagt   1200
ctgggcaaca gaggtgcagt taccccccatt ttacaagtga ggatgaaaac gtccagaaga   1260
gaatgaaaga gtgtaccagg tgggaggggg cagtgccctg gggaggagtg tgcatagttg   1320
ctggaacagt gaggcagcgc gggacagcct ggagcaaaca gccaggagag gagggctgag   1380
ggctcacagg gaccaggtca tgtcaagctg tcacaggcca ttttaaagac tttggttttt   1440
actctgagtg aagtgagaag tcattcctct gactgctttt ggaaagactg gaaacagcaa   1500
ggaagggaat agggcgacca ttaggggccc tcataatagg gccaagagat gatagcagct   1560
aggaccagca cattgatggt gggactggtg ggaggtggtt gcattctgga tatgttttga   1620
aagataggat ttgctgatgg tttggatgtg aacttaagag tgaggagagg agttaagggt   1680
gactcccaag gtttttcgcc caaggaagta ggagaatgga tttgccaggt attgaggtgg   1740
ttaagactag caggtaaggg gtggaggagc aggcttaggg aggaagatgg ggagttgtgt   1800
tttgtacaag gtagatttga ggtgtgtgtt agaattgaca cttggattga ttacctacac   1860
ctggtgttgg ggagatggca aggctggagg tatcactttg ggagtcctca gcatatggtt   1920
gtatttaaaa ccaggacact ggatgagatc ccacggtgat agccacagca ttggtgtccc   1980
ttccttcaat acggaacatg tttttaataa aaaataatag ttttagggac agcttttatg   2040
cattgagtgc tattactttt ttgaggcact ttcgcagttg cttatatgtg aaataattgt   2100
agggacagct tctgtgcatt gagtgctatt actttttcga ggcactttca cagttgtttg   2160
aattttcagg tatttagtaa gttacacaac aggtggtgac tctgtgtccc cacactcgat   2220
tcttgagaaa gccagggcat aaactgggct gtgcgctcag gggacaggcc tggatagagc   2280
caggatttaa actctgctgc cctgtctcct ctttctgccc tctcacagca gttctctgtt   2340
ccctgagcct tcttgttgcc aggttgctat gagttgttgc ggtcttgagt taaactgtat   2400
gattacagtg ctggttcctt gggaagggac cactaatgac cttgaaatcc tggcccccca   2460
aaaccactgt ttcactagcg tgttctcatt tgcacagtca gcatttcctg ggtttctgct   2520
gtgtgccggg caccgtgagg atctggattc ccagatcctg cctacactgg gtagcaaggg   2580
gaagggtttc cttggccagg cctcacagaa ggcttcctcc ttaaagaggc ctcctcgtta   2640
atgagcagtt gggccaagtt ctcagaccaa tcttggccaa attgaaatct caggactgga   2700
aaggctcccc atgtgctgtc aagtttcatc cctctggtgc taatgaaaac catccatata   2760
gcagtcgttt cttttagtgc cccctgagta gcttctacag tacctcactg agccttttca   2820
acagctccat cgtcccccat cgccttttct atcaagggac ttgggttcaa agaatgttgc   2880
ccagggtcac agagctatct tgtgaaccca gggctgtctg actgcagaga taaatgcctg   2940
agcctgtacc cgctgcctcc tctggtagag tggcacttca tctcgcccac ctgcctacca   3000
tcctgctata gagcaggcta cggggctgga cctgagagta ggaataatgc attctacaag   3060
taaaatttgt tttacaaatt ttacacatga agaagctgct attttctttc tttctttttt   3120
ttttttttt ttttttcttt ttttgagaca gtcttgctct gccacccagg ctggagtggt   3180
gcagtgacat gacctcggct cactgcaacc tctgcctccc cagctcaagc gatcctcttg   3240
cctcagccct ccaagtagct ggggttatag gcacacacca ccacacccag ctaatttttg   3300
tatttttagt agagacaggg tttcatcatg ttggccagga tggtctgaaa ctcctggcct   3360
caagtgatcc gcccgccttg gcctcccaaa gtgctgggat taacaggcgt gagccaccat   3420
gcccggccga gaagctggta ttgttaagag aaaagggaaa tgatgtagta gaaacctcaa   3480
acctaagcac tggcctgaac ttaggagacc cagggtcagg tccaagtctg ccttagaagg   3540
cccctctctt cccagctgtg tgactcaccc ctaatctctt aagcttgggt ttctagtctg   3600
tgcagtgagg caattgcact ggatgaattt ttttgggcca ttgttggaac attttatagc   3660
tgtgtgacct gggcctggct tagggcccct tggagtgaga caggaaggca catggcttgg   3720
tgaacaccat agatgtcagc cgtacctccc caccccagt taagcagggc aaggtagatc   3780
caggctgggt tttagtaaag gcctgagtgg cagaacaggt gtcattttac atcagcctca   3840
gtctaacaga ttctgggctg cttatgagtc ttaacactgg ccagaggctg tgatttctag   3900
taggaagaga atagtcacct ctattacttt cagtggcaaa aatcgcaatt acttttacac   3960
aacctaatat gttgaaggaa gaggtccatg gaaatggagg ctgccaggga tgtctttgtc   4020
```

09750204

```
agcttctggt ctcccaagat aaatgcatac ctgtagtggg ctagaaaggg gcagacttaa   4080
gatctgaaca cctgagttag gtgccgttgc aatcactgac cttacccagg ctggtcttgc   4140
tgaacttctc ccccttgtaa aatagcaata agcgagcact ggtgctgtgt gcagagcttt   4200
acatctgctt tctgactcga tccttacaac agccccgaga agggctagta atagccttat   4260
gttatataaa caaatttaa cagggaaatc attcctgcag ttctgtttta aaagatataa   4320
attagtataa gtgaagcctc tctcccctct gatccttgac attctattct aatggttcca   4380
tgaagcagct aattttacca gttattagtg tatccttcta gagacatttt tatgcttaca   4440
aaggcgaatt gtattcctct ttttttacac aatcagtaat acagcatgag cacacttgct   4500
ttcccagtat tatctctcgg caattgttca gttcacgaca tataaaatac cttgattctt   4560
ttttactggt gccttgtatc ccattgagtg gcataccata atttattttg gggtattaca   4620
aataatgcta tagtgagtag tgttgtaaat atatatcatt tagtgtttat atggatctgt   4680
ctgagtgtaa attcctaaag tggaattgct ggtttaaagg gattatggat ttgcaatttt   4740
agagctactg ccaaacactc ttccctgtgc aggtcatacc agtgtgccct cccaccaaca   4800
gcgtgtgaat gtacccaatg cccaagtcac caacacggtc ttataaagct ttgtcatctt   4860
tcccagtctg aaaaagtgaa aaatcagaga catttgtagg actccttata gaggaatttc   4920
tttgcctgtg gcatgaattg ccaatgtatg ttctctgttt gtcatatttg gcttgtgact   4980
ttgcttgagt tttgccatac agaattttta aaggtttagg tggttgatgt caacaagctt   5040
ctttttgagc ttctaggttt attataatcc ttcagaaagg cttttccaac tcttagatca   5100
ttttttttc tttgcagaga tttttctaga tcttagagtt ttttaataat tgtatcttac   5160
tttcagctga aatttatcct agtgcaaagc atgaggaaca ttttgatgtt aatacgagga   5220
gacaaatctt aaggaatttg tttaaggtta caaagtttgc acatggtaaa gctaagagtc   5280
aaacccagga ctcttgcatc ccaaaggact cttgaatcat atgcaggact ctctgaatcc   5340
caaactcatg cttctgtgat aggaactacc ggacattatg ccttgtagga ttattgtgag   5400
cattaatgag caaagttaga aagtgggttt gtgtgtgctg ggcatagggg atacacggat   5460
gttttcttca gaccctggcc ctccttactg acagtactga tacttgtcct gaatatcatt   5520
atcgtgtgta ctgagcacga ggttttgcta gatttttcaa gcacatttgt cttaatactt   5580
tttccttcct atcccattca ggttcacaga atgattgcag agttcaagct gatccctgga   5640
cttaataatt tgtttgacaa actgatttgg aggaagcatt cagcatctgc ccttgtcctc   5700
catggtcaca accagaactg tgactgtagc ccggtaagca ggagacccccc ggggacagat   5760
ggggcctcac tggcttggag tagttgtttc aagacctgct gctgaccctt tgacctttt   5820
tcctttggga gtagagcaga aactaaaatc atatcttata gtcccctaat tggaagctac   5880
cttggagtag gatctgagtg aactccactc cccaccccaa cctatgcaga aatccctttt   5940
aagatcttcc taggctgggc acagtgactc aggcctgtaa tcccagcact ttgggaggcc   6000
gagcgggcag atcacttgag gtcaagagtt acagaccagc ctggccaaca tggtgaaacc   6060
ctgtctcact agtgtgagag acacttgcgt ctctcactaa aaatacaaaa attggccagg   6120
tatggtgttg ggtgcctgta atcccaactc ttcgggaggc tgaggcacca gaattgcttg   6180
aacccaggag gcagaggttg cagtgagctg agatcacgcc actggactcc agcctgcgta   6240
acaaagtgag actgtgtctc aaaaaaaaaa aaaaaaaaag ttcctgcctg aggccctcta   6300
gccaacttcc ccttgtaatc tctgtgatag ggatctcatt tcactccagg caggggctgc   6360
ccactgcatg agctagcagc ctgcttttcc ttatttgctg ttttatccta ttgtaatttt   6420
catccaccta tagaaccgtg ctcccgggcg tggtggtcac acccgtaatc ccagcagttt   6480
gaaaggccaa ggcgggcaga tcacttgagg tcaggagttc gagaccagcc tggccaacat   6540
ggtgaaaccc cgtctctact aaaaatacaa aaattagcca ggcatgttgg tggggcacct   6600
gtaatccctg ctactcagga ggctgaggtg ggagaatcac ttgaacccgg gaggtagagg   6660
ttgcagtgaa ctaagatcaa gccactgcac atccggcctg ggtgacagag caaagacact   6720
gtctcataca aaaaaaggtg gctttggttt tttgagccca agcactctcc tttagcttgt   6780
gtctctcaca gtccccttga gagagctctg aacaggacat tggaaggctt gttggaagag   6840
cttgaatgaa tcactgaatc tctgagcctc tgttttcttg caaaagaagg ataatactct   6900
ttcccctatt ggcccccggg ctagtcggca ccctgcctac cagcatgaga aggaaagtgc   6960
tctgggacct aaaagtgcca cccagccatc ggcctggtgc catggggccc tcttctcttc   7020
actgcactct ggggacttcc ctcagcgacc tgtcttctgc tttatcattt gagtttttaa   7080
tttcaagcaa atatattttg catttctaga tgttctgtct ggctcaattc ggaaactgct   7140
tagccatgat gttaatatct tttttctgct gcatattctg tttttaatca tttttaaaat   7200
actttcttaa ggtctctttc gattgctcat ggggcactaa tgcttgtgtt tgggtcttca   7260
gacctcaggg tggagtgttg cctcgtgttt tgtaatgtct gtggagcggc caccagaatt   7320
gcttgaaccc aggaggcaga ggttgcagtg agctgagatc acgccactgc actccagcct   7380
gggcaacaga gtgagactgt gtctcaaaaa aaaaaaaaaa aaaaaattct gcctgaggcc   7440
ctctagccac ttccccttgt aatctctgtg atggggatct catttcactc caggcaggga   7500
gggggctgcc cactgcatga gctagcagcc tgcttttcct tatttgctgt tttatcctat   7560
tgtaattttc atccacctat agaaacgtgc tcccgggcat ggtggctcac acccgtaatc   7620
ccagcacttt gagaggccaa ggcgggcaga tcacttgagg tcagtggggt tagtttcccc   7680
```

cttggatacc tgtgtagcct cagccctgga ggcatttcta cagggcactt ttgcttttgt 7740
ctggcagctg tcccagggcc agttttctta tttaatgtct tggccctact gccccagtcg 7800
tatgagccca gggtttctgc tgctcttggg agggcccccc tcacccacca gcagcaccat 7860
ggcagagcca ggctccctgg gctggtgggt caggcctttc taacccttct ttcaccaagt 7920
gtacatgctc cccaggcttt actgggacct gacaccctgt ctagtccctg cagggcatta 7980
aaacccaagc cttagtgtga ctaggtcttg tctccacctc tccacactgc ccacagctgc 8040
tgagtatcag ttccttggct cactattcca aactcctcgg tcctttcttc atttctaact 8100
cctatggact tccccccgctc ctccccacac gtgttgtttt gtttgttggt tggttggatt 8160
tttgggacag agtctccatc acccaggctg gagtgcagtc agtggtgcga tctcggctca 8220
ctgcaacttc cgcctcccag gttcaagtga ttctcctgcc tcagcctcct gagtagccag 8280
aattacaggc gcagcaacta tgcctggcta atttttgtat ttttagtaga gacagggttt 8340
gccatgttgc ccaggctggt ctcaagctcc tgacctcaag cgatctgccc gcctcggcct 8400
cccaaagtgc tgtgattaca ggtgtaacca ccacgccccg ccttattttt tattgagtgt 8460
gatggcatgt ttttagcagg aaggggggcca cattagctta atctgctgtt gatcagatgt 8520
ggaagtgaac agatggtttt ctaactaaag aaaagtcctc atggtacatg aggacagagg 8580
cttagagaag caggctccca ccagagtgtc tgcttgtgtt attttggaac cttgtggctg 8640
tggtcctaac attgaggctg tgcatgtgtt tcaggacatc accttgaaga tacagttttt 8700
gaggcttctt cagagcttca gtgaccacca cgagtaagta caagagtgtc cctgcaagga 8760
gagttgttgg gctgtcttcg gaaggcctcg atctccttgt ctggtccctg acctcagctc 8820
gagaggaggc cctggagctg gtggaagccc actgtcccct cagtgttagc aggtgtgaca 8880
ctgcagtcgg acctcccgtc tttccagact tccttatggc aggcactgcc ccaagctttc 8940
ttctaaccct catagccacc ccaggaactg agtatggaag tcgttggccc cttactacct 9000
ttggaatcaa tggatttctc aacctactgc ccctctaaag caagagtgga cagcgtggct 9060
attcccaggg gccggcagga acttcagaca ggcaaagccg actgcttact gagcagctgg 9120
aggattcttc cctccacaag gaggtgtgct cccatttttc ttgaaagaca ttctgcgctc 9180
atttatttt taaccttcga tggagaatgt acaaggaaaa ttactctctg ctgtaaggaa 9240
aacagtgcag gaaggggtg actagcagct gacccttgac cttggcattg gggaggtgat 9300
gtggggacct tagtgaacaa gaatttcagt gagctcagct ccagccagct gcgtgtgcac 9360
aggaaactgg gcccactgtt gcataacttc tgatttttc tgccaagcaa aggcagaaat 9420
taagatttat gtgaaaggtc ctgattttaa atgttggttt aaatatttta aaaaccttgc 9480
atttgagcta acagaacatg cctggagaca gctgtggccc cagggcacct ccatcatatg 9540
cacccatcct ctgtgagagg ttttccggct gaaagccata gaagggctcc aggaagcatg 9600
ttaaccttct gaaaaatggc accacatatg ttatggaact gtgctgtttt ccctgaggaa 9660
gtgagtctct ggctttcatc agactcttca gtctgagtac tctgtgggat atcaggatga 9720
atgcaaacag ccatggcccc tgctctcatg aagggcagag tctgaaaaca gagacagttg 9780
ttcatccaag gattccaccg ttgagcatta gtgataagtg gagatggtat tcaggaggag 9840
aggaacgggg tctgtgagag acatttgaca gggtccagga ctggccagag gacactcagg 9900
aactctcccc tgcagaagtg gcttgccagc caagacctga agtgtcagct tgtagtgaat 9960
tgagtgaaca ggcatgtgag agggtgtgtg ttctagccag aagcccctga acgagggaag 10020
accattgtgg ccagctgatg ggagtgatgt gggcttggct ctgggctggg ctgcacagga 10080
cgttgtgggt cacagtcaca gggtgttgtg ggtcacagtc acaggcctgg attttatata 10140
cagatggtcc acttagaatt tttcaacttc acaatggtac agaagtagaa ttttgaattt 10200
tgatcttttc ctgggctcat gataaacagt tcaatactct tgcaatgctg ggcactgagc 10260
tgcagctgca gctcagaatg tatttcaaga aaaatggtga ccagctacac gatcaccaag 10320
gtagacaacc agtactctgt gctgtgcctg ccgtgttgcc agtgattatg gccaactgta 10380
ggctgaagtc agtgttctga gcacattcca ggtaggctag gctaagctag gaggttcagt 10440
gggttagata tattaaatgt gttttctttc ttttttctttt tttcaagacg gaatcttgct 10500
ctattgccca ggctggagtg cagtggcatg atcttggctc actgcaacct ccaccttctg 10560
ggttcaagca attctacctc agcctcctga gtagctagga ttataggcgt gtgccaccac 10620
gcccagctaa ttttttatat ttttagtaga gatggggttt cgccacgttg gccaggctgg 10680
tctcgaactc ctgacctcgt gatccacccg cctggacctt ccaaagtgct gggattacag 10740
acgtgaacca ccgcgcccgg cctcaatatg ttttcaactt aacggcattt tcaaatacga 10800
tgggtttatc aggacataac ctcctcctaa gtcaggaaat gtctgttcta aatgcagtgg 10860
gaagctgtgg aagtgttttc accgggagtg acaggatcag agtcctgatt ctgaagatca 10920
cttttggcac cgtgtgatga ctcagttcct gtgggatacc ttttagtaaa gggagctggt 10980
gtcctgggaa cacaggaccc agcagtgaca ggcctggatg gcaagtcggg ggaagtgtca 11040
cagttaacca ggcctctgtg tgatgtgtga ccgtggtgct tggtgggact gctgcagcag 11100
ggccaggctt gagtgtgatt ggacctgttg aggtgttggt gcctttgaga aaacaagtgg 11160
aaatgtaggc aaagagaaag gcccagagct gctgagggaa ggggccttgt cgatgaatgt 11220
ggcaggcagg ggtcggggat gggggtgggg ccagggagag attccactgc ctgagagccc 11280
agagttccct cctgcaggtg ctggctggag tgagaggtgc tagaggaaag tgcctggtgg 11340

Docket No. PS804

cttctcagat tctgtccaca ggaagtgggc aggagactcc ctacactagc ctggtgctga 11400
cccagcagcc ccagttcctg tcctttacct cctccaaccc attttgtttc aggaacaagt 11460
acttgttact caacaaccag gagctgaatg aactcagtgc catctctctc aaggccaaca 11520
tccctgaggt ggaagctgtc ctcaacaccg acaggtgagt gcaggggtgc agcttttccc 11580
tcagcccatc ccggctgccc acgttccccg ggggctcacc ggtgagcaca tccaggtatg 11640
cacgcgtgtc ctctctcaca tgcagctaca gtgtcctgag ggctcctgtg tgccaggcat 11700
tgtattcatg tcacctgcat tttctcattg gagcctcaca gcagccctag gaggggagcc 11760
ccatcagtac ctgcacttga cagatgaggt gagcctcaga gaggtcacct gccagaagtc 11820
atgtgtgctc cgcactgccc caccgccttg tctcgtgcat tcagcccctt tgcttatgtg 11880
ctcctttctt gcctggtggc atctgcagcc aagcaggaca gacagaagcc tcttacctgc 11940
tgccaagtgt taggttgcat tacctgggtt aggtttgcct cacctggagc caggcagtgg 12000
ggggctagtc tcacaggcgt cagaatacag tggactttat ccaacaagag ccatgatttc 12060
ccaacctttt ttgtttgttt gttttgtttt gtttttttaga cacaaggtct tgctctttct 12120
ctcaggctgc agagcagtgg tgttatagct cactgcagcc acaaacttct gagctcaagt 12180
gattctcctg cctcagccgc ccgagtagct gggactacag gtgtgcgcca ccattcccag 12240
ctagtgtttt tacttttttt ttgtagagat ggggtctcac tatgttgccc aggctggtct 12300
cgaactcctg gcctcaagtg agcctcccaa agtccaggga ttacaggtgt gaaccacctc 12360
tcctggcctc ccaatctttt ttttctaagg tagcagaact cttcattcaa ataaaattgt 12420
acccagtcct gcccctgatgt ctgcagtgga tcacagcaga gctgctctgt ttgaagggcc 12480
cagacccctg cgtgcctggc cgtcttcctt cccccatgac ggggccagag tcatttcctc 12540
atctcctgcc tttgcttcat agactgggaa gctgaggctt ggagttgtgg acacttgccc 12600
aaggccagct ggaagtgaac ctcaggcacg gagtacgctg ggcctcaccc tattggcaga 12660
gtctttcccc atctggcaga ctggcatgac ctgtttcaac acacttttgg tataaacagc 12720
tctcctctgg cagttctaag ccatgtctga ttctggatat gtttctggcc tgggaaggaa 12780
agctggcctg agatgtggtg ggaatgcact tggcagttta attctgtggc tgcaggggtc 12840
tccggggctc tggacccagt tggagcagga aggcatcctg cagacttgga aatgtcccca 12900
tggtttttca ccgcctaagc cagcagaatg acccatcccc agggcccctg tcagcctctc 12960
agatctgtca ccaatatctc tcttctattt caggagtttg gtgtgtgatg ggaagagggg 13020
cttattaact cgtctgctgc aggtcatgaa gaaggagcca gcagagtcgt ctttcaggtg 13080
agtctgggga aaagtacctg ccgattctgc ggggctgcag agccaggtgt ttctcaggag 13140
gttaggaata cctcctttag tcaccagcgt ccatgcctcc tgaagcacaa ttactgttgg 13200
ggagaggtgg tttgactgcc atcttgtgta gttttgactc gacaggtatg tgagagcttc 13260
ttctgcagcc cacagtgacc gagcattcac caagcacctg ttctgtgctg gtgccttatg 13320
ggtgggagag aactaggata cgggccctgc catgaattcc ctagagctgt gctgtttcaa 13380
tgcagtgtgg gaaggaatgg agccagggtt ggcccaggag ctatagcagc aaaggaaagc 13440
ctcttccgct gctagggctg ggggctgggt gaatacaggg agaccttctc tgaggtcctt 13500
agatacatct aagatgagtc ttgaagtcag tggacaggta gagttccatc agggccgggc 13560
gtgagctgtc aggaggcttc atgcccacat gggcctttgt cacttcagtg ccttgtccaa 13620
actccctgtc gtggataccc gctgtgccct ctgggtccct cggtcagcat caaccactac 13680
ttccctaggc cagcccatcg tctgtgagcc cagtggcctg tctgcatgtg ttcgtccgct 13740
tcccacacac attcctggcc cctcaattgc acgtcctccc attcttgtga aagggcaagg 13800
cctagagtat gtttcacggg ggctcgcagg agccagccct tcgatcccag atgttaccct 13860
ttctgtgaca cagccccttc cagacagacc cagatagaag acttctccac tgagctggct 13920
ctctgtgagg atgggggcac tgctgtgtcc ccaggcccag gatgaagcct gatgcttggt 13980
agatgttcag taaatgttga gtacatgaaa aggcaacaaa catctcccaa ccccttggag 14040
aactgaacat gggccggaag agggcagcct tagccacctg agccagtatt tgggtcgcag 14100
gttttggcaa gctcgggctg tggagagttt cctccgaggg accacctcct atgcagacca 14160
gatgttcctg ctgaagcgag gcctcttgga ggtatgatct ggagcagcca gtgtcttggg 14220
ttccgtctcc ccccagccca cgcgttgctg tgtcctgtcc tgagccccaa acagttcatc 14280
aggagcagag cagatctcgt gacttccaaa tgcctgtgca ggctgcctta gattttgccc 14340
tgggtttcca actgtgggtt ccccatgggt gcttacgggg tgacaggttt agagggtggc 14400
caggccatgc aggagggtga cagtttggtt acccagcaag gcattttgac cctgaagata 14460
ttttgtacta aaagttaatt ttcctttatt gaataatggt cttcagaaaa agtaaaactt 14520
agagcagaat ggccaaagtt ataattggtc tttcagattt tttcatatgg acaagaaact 14580
gacccacgaa ttataaaatc catgtggaaa agaattgatc caaatcaatg taacttcaag 14640
aaaatgtaga aaactttata aaggagtaaa ttggctttat tctcttgatg aaaactcagt 14700
attttggtgt aaactctatt taaacaattt cgttcataaa cacaaagaca aaccatgggg 14760
tcaaaatgtg tcctttgctt ttaaattctg tccttcattt acttgaatga cctcagtgct 14820
taggcagtgg cctgtgtttt agacctggtg atgacagctc ccctcaccta ggagctgagc 14880
accccggcca tcttggtgac cacagagcag gtcacaggct tcagctgtac gccctgggca 14940
ggggagagat tgtgctgcat tcccagtctg ctccacctcc tggtgaggtc tgtcaggcct 15000

09500852 - 091204

EP 2 204 439 A2

```
ggtcctgtcc ttggagccac cagcatcctc agacaagaat ctagacagtg ttgccagttc  15060
catccccagg atgcttgctc aaagccaatg catggtctga gctccatgcc aggccctggt  15120
gggggcagcc acgttgacac cttcaccctg tccctcctca cccagcacat cctttactgc  15180
attgtggaca gcgagtgtaa gtcaagggat gtgctccaga gttactttga cctcctgggg  15240
gagctgatga agttcaacgt tgatgcattc aagagattca ataaatatat caacaccgat  15300
gcaaaggtaa agttaaccca gggctctgtg gagtgtgctg ggttgtccag aagttcacct  15360
ggagtcctgg tctgccaggc tttaggcaca ggttttacgt tagagacgac gggggagtct  15420
gggcagtctt tggcaaacat tcattggaac ctgctctgtc tggctttgtg ctagaccctg  15480
ggaatgcagg gatgaaaacc ggggctgctt gtgggtaggg agtgagggtg ggaatgggtg  15540
gcttgtgcgc ctgccgtgac gcagcatggt gggtgccacg gtgggagccg ctgtagggag  15600
ggactgggcc tggtgtgtta ggctcaccga gtgtgtgtga cagaaaccca gctcaggcta  15660
gctgaagtaa aattaaaagt aaaaattaaa ggaatccagc acccttgagc gtaaaaccac  15720
tggagagagt gtcggatctg tgctgaattc cggggagtgc ctcttagtac ctgggtggtg  15780
aggggaggtc cctcagctta tctgagcctc tgtcttccta tctgaagcag tggggctggt  15840
agaggtcgct gatgcccctt gtagtgacta tccccccggg ccatggccat acctggccag  15900
cagcccactg cctgctgtga gcttggtttc tgtatagttc caggtattcc tgaagcagat  15960
caacagctcc ctggtggact ccaacatgct ggtgcgctgt gtcactctgt ccctggaccg  16020
atttgaaaac caggtggata tgaaaggtac atgaaaggca ggctgtcaag gcaagtcatg  16080
cagggtaaga atgctggcat cagacaccct gtctccagca gggagacaag aatgactgag  16140
ggagctgcac cagatgccca cgtggccggc ctcaaggtgg cggcttccag ggcaattggc  16200
tttgctgcct tgttcaacac tttaataagg tgaaaatcca ttgttgctag caagatgcaa  16260
agaaaaccag aaaaagacct tcctcttctg ggctggtatt gcctggcacg atgagttggc  16320
cccctcgtcc tcagtgtgct gtgcgtggca tcgcaggtgc cctgtggtgc agcaggcatc  16380
tgaaccctcc tggacttgct aacgcacttc catgtgtatg cgcacgcgtt tccttttttt  16440
cctaggagag ggcttgtggc atccagcaga ttctcctgag ggtttgtgac ccccccacac  16500
ccccaaaaag tcaggcactt gttccttgtc acggtcactg tcattgatag caagaagtat  16560
cccggttgtt ggtaatttag ccgtttgctt ccttttttctg ccccagaggg tctgtttcag  16620
gggaacagcc acacagattt tggtaccttc ggttattgcc ctgcctccca gttgtgcggg  16680
aagcagttgc tccgacacta gtggacggag cagaacctgt gccttgtggt ctcagcactg  16740
ggccggactc acctgagagc tggtgtggaa aaccagttgc gctaggacct ctgcagaagg  16800
agtggaactt ttgcgttgtt tttcttaatg cagcgtcatg gatccatctt cctgtggagg  16860
gaactcttct gtgtgtgata tggagggcac gggtctggag ccagtctggg gagggctgag  16920
ggagagctgc cctgagcttg gttctggagg atgaggtggg gtgctcctgg gcactctgag  16980
aacatggctt tgcctggtag caggacagct ggaggtcctt ctttctgcca cagtcagctt  17040
tcgttgaagc tgttttgatg atgagctcct agcttcagag tcaggaccca agcggggctc  17100
cacgaaaggc ctgggcgacc cagccactgg gcctaagcct gacctgctgc acccctgcct  17160
ccctccacag ttgccgaggt actgtctgaa tgccgcctgc tcgcctacat atcccaggtg  17220
cccacgcaga tgtccttcct cttccgcctc atcaacatca tccacgtgca gacgctgacc  17280
caggtgagag gccccggcag acacacagca gggaaggtcg attggaaacc acttcctttg  17340
tcctggtgcc cagcaggttt ctgtccccca ctccagaagt gcgtctctgg agacccagct  17400
cttctgagga ctgtgctcag gaggaatcag tgtcccattg tacagacagg gcctaaggaa  17460
ggagggctcg caagtgccct caggtcacag gctgacttgc aggccagtgc tctccccgcc  17520
tcccccatgt ccacgtccct cacaccttct gccctgctgg gctttggaat cggacctgag  17580
gctgcccaac tccctcactg aatagtcatg cagccttccc ttctctgagc ctcctgcccc  17640
tcttttctag agtgagggtg atcttagcac ctctcagagg tggtctttgg ttccgttctg  17700
aggtgaagca ccaggtggga gtgcatggtg agtggggcag aactctttcc ccaccgaggc  17760
gcgcaggcta gtgctgaatg gcacttctga agcgggataa ccgccccaac acacgcaccc  17820
agccctgcct gggacggacc ttccggaagg agtgatgctt gagcccaggt ctggacaggg  17880
acaggtgttg ttgcctcagg tggggtggga ggtgggcgtg gggaagagga aggtgctcag  17940
tcaggaaact ggggctgctg ggggccccct tcccccagtc ctatctcacc tctgtgcagg  18000
gagagctctg tgggtggccc gaggcctggg gccactctcc tccctgcctg atggctaccc  18060
aggttcacca ggggccactg gggctcccac cagcccctga ccctgtgggc ctgtggcctt  18120
gcaggagaac gtcagctgcc tcaacaccag cctggtgatc ctgatgctgg cccgacggaa  18180
agagcggctg cccctgtacc tgcggctgct gcagcggatg gagcacagca agaagtaccc  18240
cggcttcctg ctcaacaact tccacaacct gctgcgcttc tggcagcagc actacctgca  18300
caaggacaag gacagcacct gcctagagaa cgtgagtgcc ccaccctcaa gggggtgatg  18360
ggtgggccgc ggacccaggg cctctcagag gggtgtcccg gtgctgggct tgacctgggt  18420
cctccaggcg ccccccagcc cctccctctt tgcccagagc tcctgcatca gcttctcata  18480
ctggaaggag acagtgtcca tcctgttgaa cccggaccgg cagtcaccct ctgctctcgt  18540
tagctacatt gaggagccct acatggacat agacagggac ttcactgagg agtgaccttg  18600
ggccaggcct cgggaggctg ctgggccagt gtgggtgagc gtgggtacga tgccacacgc  18660
```

cctgccctgt tcccgttcct ccctgctgct ctctgcctgc cccaggtctt tgggtacagg 18720
cttggtggga gggaagtcct agaagccctt ggtccccctg ggtctgaggg ccctaggtca 18780
tggagagcct cagtccccat aatgaggaca gggtaccatg cccacctttc cttcagaacc 18840
ctggggccca gggccaccca gaggtaagag gacatttagc attagctctg tgtgagctcc 18900
tgccggtttc ttggctgtca gtcagtccca gagtggggag gaagatatgg gtgaccccca 18960
ccccccatct gtgagccaag cctcccttgt ccctggcctt tggacccagg caaaggcttc 19020
tgagccctgg gcaggggtgg tgggtaccag agaatgctgc cttcccccaa gcctgccccc 19080
ctgcctcatt ttcctgtagc tcctctggtt ctgtttgctc attggccgct gtgttcatcc 19140
aaggggggttc tcccagaagt gaggggcctt tccctccatc ccttggggca cggggcagct 19200
gtgcctgccc tgcctctgcc tgaggcagcc gctcctgcct gagcctggac atggggccct 19260
tccttgtgtt gccaatttat taacagcaaa taaaccaatt aaatggagac tattaaataa 19320
ctttatttta aaaatgactg ctgtggacct ggcttttgtc cctaggactg tgtttttcct 19380
cctgaacccc aaagaaaaga atgagaagga aactggctgt ggtgtttatt cagggcccag 19440
ggaaggctga aggcagcagg gggcgatgca gagatggcag gatcggggca ggtggcctca 19500
gccagatgtg caacagcaga cattcctctt tagagcccag ggggtcaggc cgtcactcct 19560
tgtgctgagg agaaagggat agctgagtga gcagtactac ctgtcagccc ccacagtccc 19620
cctgcacaga gagcaatgcc cctgccactc ctcaccttgg ggcccagggc gtcccgggtc 19680
cgtgcccgca gcttgttggc ctgggtttcc gccatgtctg cccgctcctc cgcatcatcc 19740
agctcgtgct gggccttgcg atacttggcc aggttggtgt tggcctgctg ctcctggggg 19800
cacacacagg gccttggttc cgcttgggtg actgagatgc ttattctggt ccctgcccca 19860
gtccaagaag ggagctagct cctcctggtt ctcaactttg ttcctattgc cactgtccat 19920
cctcaccaat accacagcgg gaataaggaa gttgggacgc accaacttca tgtgcctttt 19980
tgtgcctgcc ccacccctca gaggcagccc cagccttggc caggggaaag cacatggggt 20040
ctgttccatg agaaggagct aggtctgatc tccccagaga tgttagaagc ttctctcttc 20100
cctctgggtc actgaccttg gagggtggag ctgctgctga tgcctcacct ggccacagac 20160
cctggggcag agctggggtg cccggtccag gtgtccaggc cccagcgcac tcaccgcctc 20220
ctcaaactgg cgcttgtagc tcttgacctt gctctgcagc ttgtccacca ggtcctgcat 20280
gcgagccagg ttctt 20295

<210> 2161
<211> 188
<212> DNA
<213> Homo sapiens

<400> 2161
tctgcgtgat agttcttcag gttcacttca cagattagct gacacttaac tgttctggaa 60
gctgggccaa ggagtgctaa catggaaatt gagtaactat agtttttgc ccaaggtaca 120
ggagaataaa tatgagtaga tagaatctct taaattaaaa atttctccag taaatttttc 180
ctaagtct 188

09509082 - 091202